

FARM



BY APPOINTMENT

*James Carter & Co.*

237 & 239, HIGH HOLBORN.

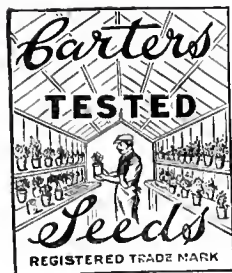
HEAD  
OFFICE

RAYNES PARK,

LONDON, S.W.

1912

# SPECIAL ANNOUNCEMENT.



It is gratifying to be able to announce that our progressive business has again enabled us to extend our premises. Established in the year 1836 by the founder of the firm, the late James Carter, at 237, High Holborn, it became necessary in course of time to provide enlarged premises to keep pace with the then extending business, when a capacious warehouse was built on the South Side of High Holborn. Towards the close of the last century the commodious block at No. 97, High Holborn, on the North Side, was taken over by our Firm, the frontage of which will be familiar to many of our Customers. Now again the exigencies of an increasing business have rendered it necessary to make greater provision still, and the restriction of space in the centre of London has led us to erect specially designed buildings fitted with our own patent cleaning machinery at **RAYNES PARK**, in the South West of London. The specially designed buildings (1910-11), to which have been added (1911-12) Laboratories, Kitchens, Dining and Recreation Halls, are surrounded by the necessary grounds to conduct our experimental work in selecting, standardising, and Testing Seeds, which is such an essential part of our business.

We cannot issue this notice without adding an expression of our keen appreciation of the long-continued patronage of our Customers and grateful thanks for their many recommendations, without which such an extension of our business could not have taken place.

Please address all communications to:

Telegraph and Cables:

"CARTER, LONDON."

*James Carter & Co*

Seedsman to His Majesty the King,

**RAYNES PARK,  
LONDON, S.W.**

Telephone Nos. 1100)  
" 1101 Post Office, Wimbledon.  
" 1102)

**Branches.**—For the convenience of our Customers calling in London, we maintain our shop supplies of Everything for the Garden at

**237 & 238, HIGH HOLBORN, W.C.**  
(Telephone 332 Holborn)

**53a, QUEEN VICTORIA ST., E.C.**  
(Telephone 941 Bank)

Where all Orders for Farm Seeds will receive prompt attention.

**Carters Nurseries: Houston Road, Forest Hill, S.E.**  
Telephone 88 Sydenham.

NOTE.—This Book and its Photographs are Copyright Property.—J. C. & Co.



Seedsman to  
The Indian  
Government.



Seedsman by Royal Warrant to  
**HIS MAJESTY KING GEORGE V.,**  
**HER MAJESTY QUEEN ALEXANDRA,**  
and the following Royal and Reigning Houses.



Seedsman by  
Appointment to  
H.R.H. the  
Duke of Connaught



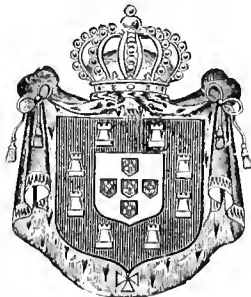
Seedsman by Appointment to  
H.I.M. the German Emperor.



Seedsman by Appointment to  
H.M. Queen Alexandra,



Seedsman by Appointment to  
H.M. the King of Italy.



Seedsman by Appointment to  
H.M. the King of Portugal.



Seedsman by Appointment to  
H.M. the King of Sweden.



Seedsman by Appointment to  
H.R.H. the  
Duke of Saxe-Coburg and Gotha.



Seedsman by Appointment to  
H.M. The King of Roumania.



Seedsman to H.R.H. the Grand Duke  
of Mecklenburg-Schwerin.



Seedsman by Appointment to  
H.H. the Duke of Anhalt.



Seedsman by Appointment to  
H.M. the King of Siam.



Order du Merite Agricole,  
France, 1889.



**Carters Red Emperor.** A popular Mangel with Dairy Farmers.

1/6 per lb. See page 17.

**Carters No. 1 Sugar Beet.** Average Sugar percentage 20 per cent.

1/6 per lb. See page 51.

**Carters Holborn Invicta Swede.** The best Swede for all purposes.

1/6 per lb. See page 28.

**Carters Windsor Mangel.** "The finest Yellow Globe in cultivation."

1/6 per lb. See page 1.

## CARTERS ROYAL EXHIBIT AT THE

"Few Stands at the Smithfield Cattle Show excited so much interest amongst the Cattle and Pig Breeders, as the Roots, shown above, of Carters Windsor Yellow Globe Mangel, and Carters Invicta Swede. The stand also exhibited in Carters New Red Windsor Mangel, newly introduced, and a striking proof of the value of the product."

The glass jars seen in the Stand contain the sugar and bye-products obtained from the manufacture of beet sugar. (See page 51.)

The Roots and Vegetables exhibited on the above Stand have been grown by the Carters' Prize Duplication Scheme on page 23.





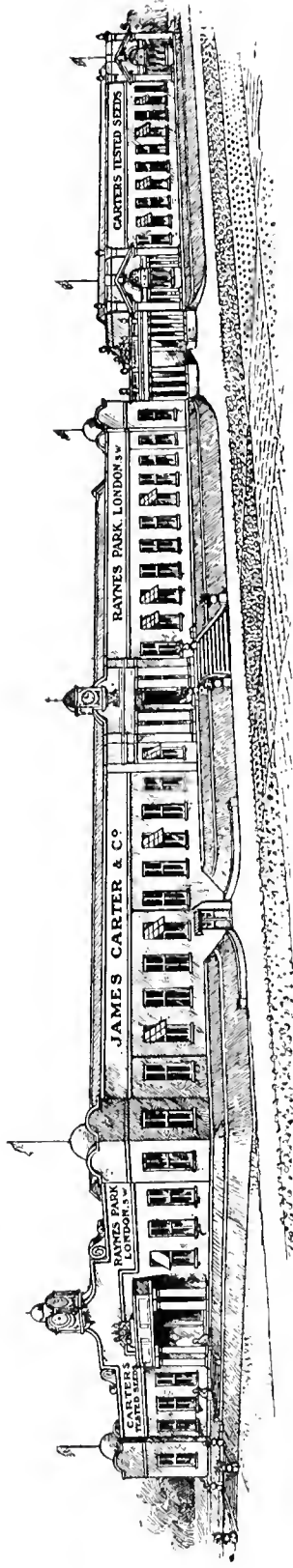
<b>Carters Holborn Elephant Swede.</b> A heavy cropping purple top.	<b>Carters Prize Winner Swede.</b> The most popular Globe-shaped Swede.	<b>Carters Golden Tankard Mangel.</b> "The Dairy Farmer's Favourite."	<b>Carters New Red Windsor Mangel.</b> The latest triumph in Mangel breeding
1/- per lb. See page 24.	1/- per lb. See page 32.	1/3 per lb. See page 18.	2/6 per lb. See pages 10 and 11.

## THE SMITHFIELD SHOW, LONDON.

crowds of visitors as that of **James Carter & Co.** The imposing piles of handsome beets elicited general admiration, but the attention of agriculturists and experts was chiefly centred on the 'Carter Method of Root Selection.'—*Agricultural Gazette*.

on one cwt. of Sugar Beets, and mark the different processes the beets undergo during the

our customers and are the prize-winning specimens from all the important Shows. Read the



420 FEET ERECTED 1910-1911.

260 FEET ERECTED 1911-1912.

From the above illustration of our Raynes Park Establishment it will be seen that we have largely extended the building to the right. The new accommodation includes Seed Testing Laboratories, Kitchens and Dining Halls, Photographic Studios, &c., &c., also more commodious packing and despatch offices.

**The largely increased accommodation will greatly facilitate prompt attention to all correspondence and orders.**

# CARTERS & PROGRESSIVE AGRICULTURE

## 1836--1912.



FIRST STAGE.— Seeds are cleaned by machinery.

There is hardly a better proof of the value of fair and honest trading than for a seed firm to continue in business for nearly a century, and we think we can justly claim that our large and progressive business is entirely due to the confidence we have inspired amongst our customers all over the world.

This confidence has been procured by the policy first initiated by James Carter, the founder of the firm, in 1836, and pursued by us ever since the first inception of our extensive business.

This policy has for its essential object **the production of the best and purest seeds obtainable, carefully cleaned and tested.** This policy is necessarily co-ordinate with the advancement of Horticulture and Agriculture in which our firm has always taken a leading part.

The growing, selection, and testing, of Farm Seed stocks has in consequence been brought to a fine science by our firm, and we are able to sell them under a guarantee of purity and germination entirely unknown before we commenced business.

Perhaps nothing has tended to improve Agriculture during recent years more than the care which has been taken to secure Farm Seeds free from impurities, such as weed seeds, dodder, &c., and we spare no expense in furthering this crusade against dodder and weeds.

For this purpose we have erected extensive seed cleaning machinery at our new establishment at Raynes Park, London, S.W., which enables us to obtain Seed Corn and other Farm Seeds as free from weeds as human skill can make them. So convinced are we of the value of pure, weedless stocks that we particularly draw our customers' attention to the following notice issued by the Board of Agriculture :—

“Most farmers recognise that it is impossible to obtain the best results from the land when weeds are allowed to grow unchecked, few, however, may be aware that in many cases the yielding crop may be from 40 to 50 per cent. higher on a moderately weedless area.

*Carters*

RAYNES PARK, LONDON, S.W.— 1912.

"Under no circumstances should imperfectly clean seed be either purchased or sown.

"The use of impure seed is the potent means of introducing weeds to a farm. The presence of one per cent. of dock seed in a mixture of grasses and clovers, means **ten or more dock plants per sq. yd.** all over a field wherever the sample is sown at the ordinary rate for leys. The progressive farmer should never, under any circumstances, be satisfied by the germinating test alone, for to the uninitiated it is entirely misleading. Though a report as to germinating capacity is comparatively high, the sample, as a whole, may be of third or fourth rate quality, one third or one half the purchase may be rubbish, or, what is worse, living weed seeds, as it is the pure and apparently good seeds only that are tested. The combined test of purity as well as germination is the only key or guide to the real cultural worth of any sample."

**Carters Tested Seeds** are sold under a guarantee of purity and freedom from weeds as well as of germination, every parcel being microscopically examined by our certified Botanist.

For other points in favour of clean seed, see page 72.

Besides increasing the purity and germination of Farm Seeds we may justly claim to have improved standard farm crops by the employment of the "Carter Methods" of Root Selection, &c.

The introduction to the Agricultural World, from time to time, of new varieties of Mangels or Swedes is however, only achieved after many varying processes which involve seven or eight years of patient observation and labour before we consider the new variety to be sufficiently meritorious to be placed with confidence before the attention of our customers. That our labours in the past have not been in vain is amply proved by the high reputation which has been acquired by such popular varieties as **Carters Windsor Mangel, Carters Holborn Invicta Swede, Carters Golden Tankard Mangel, Holborn Elephant and Kangaroo Swedes**, and, our latest introductions, **Carters Red and Golden Windsor and Dreadnought Mangels**.

It is not only to the improvement of Agricultural Seeds that our attention is directed, as our methods have been pursued in improving all varieties of vegetables and flowers, the work of which we have made and still continue to make a special feature of our business, and it is now a matter in history that our House has been responsible for some of the most important improvements in vegetables and flowers, far too numerous to mention here, and which have won the approbation of gardeners in the same manner as our improved and ennobled Farm Seeds have been commended by Agriculturists.

It will therefore not be out of place to briefly describe our methods of Raising and Testing Seeds. Taking the case of culinary Peas, these being more readily identified in the following photographs, which show the subsequent processes the Peas go through before being distributed to our customers, though all agricultural seeds undergo the same rigorous tests.

Incidentally we might mention that such well-known Peas as Daisy, Harvestman, International, and Quite Content have all been introduced by our House.

Let us assume that one of our Experts has observed a promising seedling, produced from cross-fertilisation the previous year in our experimental grounds; its merits and characteristics are carefully noted in our Trial Records. Possibly it may produce an extraordinarily large pod, or it may be earlier, later, taller, &c., than any other variety.

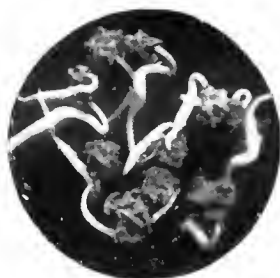


SECOND STAGE.—Hand Picking Oats and Barley. All Seed Corn is picked by hand on these machines.



The produce of the plant is then carefully harvested and sown the following spring, when it again goes through the same routine for six or seven years, to secure constancy and fixation of its special characteristics; the produce by this time may have increased to several bushels, when it is sown for a crop. Whilst the crop is growing, our Experts, who have watched the character of the Pea ever since it was a seedling in our experimental grounds, examine every plant, eliminating any that show a weakness or lack of uniformity; the crop is then harvested, stacked, and threshed, and eventually comes to our warehouse to be cleaned, hand-picked, and finally tested for germination.

After arriving at our warehouse, the seeds go through several cleaning and other machines, in order to remove all dust, dirt, and other impurities. This dirt, dust, and light seed are drawn away by forced draught to a special electrical machine which gathers and destroys the dust from all the machines. After being cleaned and graded, the seed is carefully picked over by hand; this being done whilst passing through further machines worked by electric power. These machines allow the seeds to pass beneath the well-trained eye of the pickers, of whom we employ several hundreds.



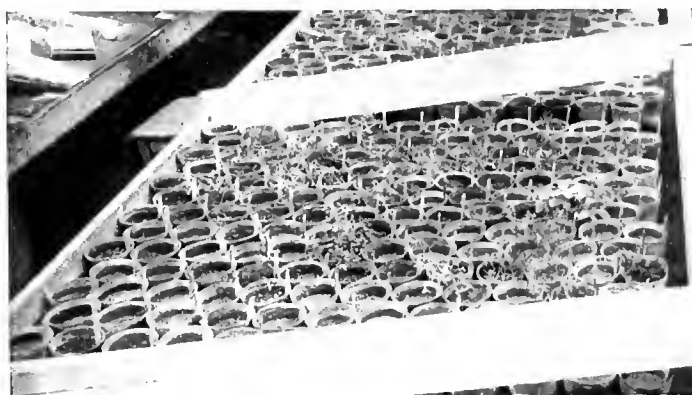
Carters Windsor Mangel  
germinating.



Carters Holborn Invicta  
Swede germinating.

FIRST TEST.—Peas germinating on warm, moist felt.

After cleaning, the stocks are carefully checked and the testing processes commence. The first consists of germinating the seeds on warm, moist felt, the subsequent test being made in mould and on fibre. The last test consists of growing the seeds on our experimental farms at the same time as our customers grow them, so



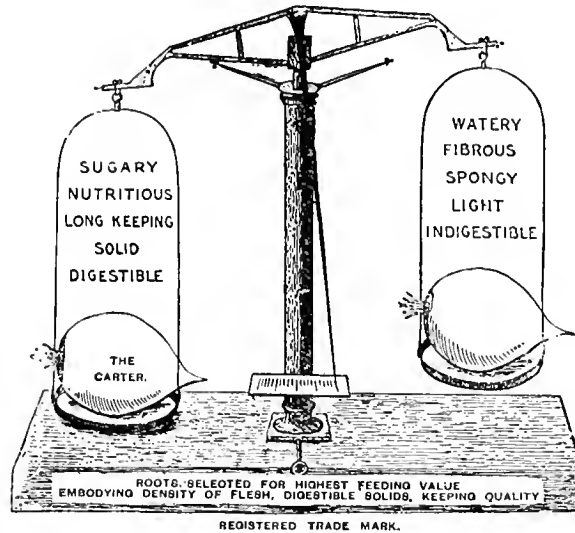
SECOND TEST.—Peas being germinated in mould.



Peas placed for testing germination on fibre.

that we are thereby able to assure ourselves of the quality and trueness of each variety. By examining our trials from time to time we know exactly how the produce of our Seeds should appear on the farms and in the gardens of our customers, and by the aid of our comparative tests we assure ourselves that our customers are growing the best and only the best, which are "Carters Tested Seeds."

# THE "CARTER" METHOD OF ROOT SELECTION.



The "Carter" Method comprises a combination of tests by ascertaining—

1. The specific gravity of the entire root as a guide to its keeping quality.
2. The specific gravity of the juice as a guide to its feeding quality.
3. The percentage of sugar and its allied compounds.
4. The total amount of dry matter.

The principles upon which the "Carter" Method of Selection is based can be succinctly stated as follows :—

1. All roots have a tendency to contain an excess of water, which excess is quite valueless.
2. A small deviation in the percentage of water alters materially the feeding value of a crop.
3. The obvious necessity arises of ascertaining the weight of solids in any Root Crop.
4. Food values and the digestibility or otherwise of the solids can be determined by analysis.
5. Examination of Roots and valuation of Root Crops on analytical principles bring to light their true and only value for food.
6. The "Carter" method is to analyse each Root planted for seed purposes, and to reject all which do not reveal a strong combination of the above-mentioned qualities.
7. Roots which stand this crucial test provide for the next year a hardier race and more generous food producers.
8. This selection on analytical principles is a combination hitherto unknown and untried by any other seed house.

## HINTS ON THE CULTIVATION OF MANGEL.

**History.**—This highly popular root belongs to the natural order *Chenopodiaceæ*, and is the only species of that order which enters into our ordinary farm crops, though the allied spinach is cultivated as a garden vegetable. Varieties are found growing wild on the sea coast, especially where the soil is tenacious. The Mangel, the Garden Beetroot, and the Sugar-beet are all derived from the same original wild plant, all having undergone years of re-selection by ourselves and other experts.

**Varieties and Feeding Value.**—A comparative analysis of different varieties of Mangel as against common white turnips shows that about 75 lbs. of Mangel roots are equal in feeding value to 100 lbs. of turnips; but we have for some years been endeavouring to improve the quality of this popular feeding root. The value of Mangel lies in its suitability to lands too strong for successful turnip-growing, its great productiveness and its excellent keeping and feeding qualities rendering the crop invaluable in the spring when swedes are becoming unpalatable. Mangel, moreover, does not impart to milk the unpleasant flavour associated with the use of overgrown turnips.

**Manuring.**—The results obtained from applying the farmyard manure in the autumn are always more favourable than those derived from spring manuring, especially if the manure be in a fresh state. The crops are not only heavier after autumn manuring, but there is not that tendency to throw out lateral roots which is so commonly associated with spring manuring. During the early autumn a heavy dressing of farmyard manure should be applied, as the crop pays well for liberal manuring, so that under ordinary conditions from 12 to 50 tons of manure per acre is not excessive. If the farmer aims at producing the best possible crop of Mangels, he must employ a complete artificial manure in addition. This we have demonstrated repeatedly in our experimental grounds, not only as regards increased weight and bulk, but also as regards feeding properties in the roots. That we attach the greater importance to the increase of food solids in the Mangel will be seen by reference to the preface, and we are now able to recommend a compound Mangel manure, which is a special preparation based upon the results of our experiments. We have proved that the application of this compound increases the food solids, and improves the keeping quality of the roots. The Mangel is a very productive plant—good varieties, such as our Windsor Globe, having produced crops upwards of 90 to 100 tons per acre—and it is unreasonable to expect to grow such large quantities of valuable food without the removal from the soil of manurial matter in corresponding proportions.

**Sowing Season.**—In an open spring early sowing succeeds best, as thereby the crop is allowed the longest possible time for growth. Some few plants may, however, run to seed, owing to peculiarities of the season, but an increase in the weight of the crop more than compensates for this.

**Culture.** Mangel seed is sown at the rate of 8 lbs. per acre, drilled from 20 to 30 inches from row to row. The time for sowing should be as soon as a favourable opportunity offers in April. It is very desirable to get the seed in early, in order that the crop may enjoy as much warm weather as possible, which is necessary to enable it to attain its full weight. The plants should stand singed out up to 30 inches apart, if large roots are required; but, as a rule, on ordinary farm soils, the crop pays best when set out from 16 to 20 inches. Repeated horse or hand hoeing is necessary for successful after-cultivation.

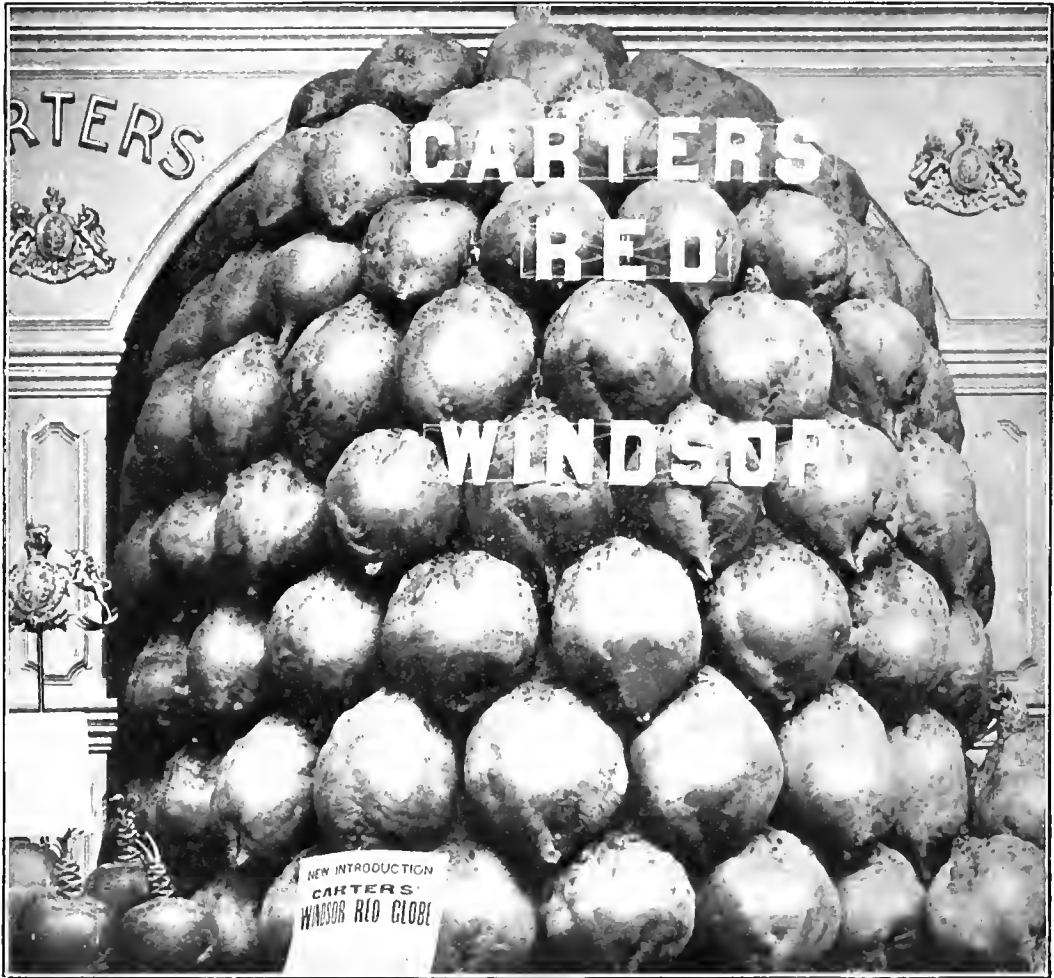
**Clamping or Pitting.**—Mangels should be taken up before severe frost, and, as far as possible, in dry weather, without cutting the roots or the tops closely, nor removing more of the earth than will shake off. Some growers do not cut the root end at all, and twist the leaves off by hand, any possible wounding of the Mangel by the knife being thereby avoided. If stored under proper conditions, well protected from frost, and not smothered in too closely with earth or other close-fitting material, Mangel may be clamped to almost any height with impunity. We have seen an old disused thatched barn filled nearly to the roof with Mangel treated as described, and they have come out in spring in beautiful sound condition. Mangel matures in the clamp, the root not being ripe at the time it is lifted. For this reason, Mangel should not be given to stock until after storing. As Mangel get better—within reasonable limits of time—the longer they are kept, owing to chemical changes in the root, they thus attain their greatest feeding value at a period when there is often a scarcity of succulent food alike for cows, grazing cattle, sheep, and pigs.

**Vermin.**—The Mangel crop is not liable to the attacks of so many pests as the turnip crop. The most noteworthy is the beet or Mangel fly (*Anthomyia Bete*), which deposits its eggs on the leaves of the Mangel plant, and the larvæ as soon as hatched out eat their way into the leaf, and thereby stunt the growth of the plant. Few of the prescribed remedies have proved efficacious when once the crop has been severely attacked. Good autumn cultivation, however, with a free use of fertilisers, and a liberal application of salt to land intended for Mangel, will usually be found effective in warding off the attacks of this pest.

**Increasing popularity of the Mangel Crop.**—That Mangel is being more extensively grown year by year is shown by the Government returns as to acreage. Last year it was over half a million acres.



# CARTERS NEW MANGEL.



PHOTOGRAPH OF THE ROOTS EXHIBITED AT THE SMITHFIELD SHOW.

## CARTERS NEW RED WINDSOR MANGEL.

This is a new variety which was first introduced by us in 1910, when a large pile of the roots was exhibited at the Smithfield Show, and elicited general admiration. We are glad to state that it has exceeded the expectations we first formed as to its advantages.

From all parts of the country where it has been tried, we have received critical reports from leading agriculturists, who speak of this new Mangel with extended praise.

**Carters Red Windsor** is the result of more than ten years' careful breeding and selection on the lines of the well-known "Carter Method of Root Selection," and the root embodies the size of Windsor Yellow Globe with the colour and high qualities of the Red Globe.

Its red skin and white flesh give a distinct appearance to the roots, which grow even and clean with a single tap root free from fangs, thus enabling the roots being easily pulled. Its small top allows this variety to be grown closer than the larger sorts.

On light, medium lands hardly any variety will give such heavy crops and is so suitable for keeping and feeding.

## CARTERS NEW RED WINDSOR MANGEL.

Price **2/6** per lb. in Sealed Bags.



## CARTERS RED WINDSOR MANGEL.

The following are a few extracts from the reports we have received from large and influential farmers, who have made careful comparative trials of our Red Windsor Mangel during the past two or three seasons. Although the abnormal drought of last year was against the securing of successful Mangel crops of any variety, the unbiassed opinions we print below fully confirm the high opinion we formed of the Red Windsor when we decided to offer it for public sale.

### BUCKS.

On light loam.  
"Thin at the neck."

We have found the Red Windsor a very good variety, and on our light loam, being very dry, it did very well. The roots were a nice shape with a small top and very thin at the neck, which I think is good. The flesh is so hard and firm that I think it is a good feeding Mangel, even better than the Yellow Globe.—J. T. W., Bletchley.

### CUMBERLAND.

On red loam on sandstone.  
"Quick grower.  
Not eaten by grub or fly."

I had a splendid crop of the Yellow and Red Windsor Mangels, but the Red variety has, I think, a rather smaller top than the former. I got 44 to 46 tons per acre, which is very good considering the weather we have had. The Red Windsors were not badly eaten by the grub or fly like the other sorts. These Red Globes were sown in the first week of May, and owing to the dry weather were not thinned until July, but we pulled them the second week in October, only two months from hoeing to carting. No other sort grew so quickly.—T. H. H., Carlisle.

### GLAMORGAN.

On medium clay.  
"A good dairy Mangel."

On my clay land it turned out a very good crop and the roots were a very nice shape, solid, and should keep and feed well. This would make a very good dairy Mangel.—J. F. B., Reynoldston.

### HERTS.

On fairly heavy clay  
over chalk.  
"Small tap root.  
Easy to lift."

This is the fourth year I have grown the Windsor Red Globe Mangels, and having made careful trials beside other varieties I believe them to be very excellent Mangels indeed. The roots are very solid, with small top, and not so inclined to run to seed as other Globe sorts. They are easy to lift, having a small tap root and no fangs to hold the earth, which is a good point with ground like mine, which is rather dirty and heavy. I have kept the roots for several months last winter and they kept more solid than other sorts.—P. E. M., Tring.

### KENT.

On light loam over chalk.  
"Excellent feeding value."

I think the variety is a very good strain; the roots develop well on the ground, and they are more easily pulled than most sorts. Their feeding value is excellent. I find that of all varieties I have grown it is the least likely to run to seed.—R. C., Hingham.

## CARTERS RED WINDSOR MANGEL.

STOCK LIMITED. Price **2/6** per lb.

## CARTERS GOLDEN WINDSOR MANGEL.

We have the pleasure to introduce to our customers a new selection in Globe Mangels. We do so under the name of **Carters Golden Windsor**, as it is a yellow-fleshed counterpart of our well-known white-fleshed Windsor. There are already several golden-fleshed globe-shaped Mangels in commerce, but there is one drawback to them all: they have not sufficient productive capacity. We have succeeded, by a rigorous course of selection, in overcoming this drawback, and Carters Golden Windsor is the result.

Our readers will recall the fact that the Carter Method of Root Selection, inaugurated by us at the opening of the present century—the underlying principles of which will be found succinctly stated on page 8 of this catalogue—has for its object the production of Root Crops giving

### MAXIMUM QUANTITY WITH MAXIMUM QUALITY.

This maximum quantity means (1) the greatest weight per acre of (2) Roots of the highest specific gravity. It were futile to produce heavy crops of watery roots.

The maximum quality means—the presence of the highest percentage of digestible food solids, combined with long-keeping tenacity. It is on this principle we have selected

## CARTERS GOLDEN WINDSOR MANGEL.

STOCK LIMITED. Price **2/6** per lb.



**CARTERS WINDSOR YELLOW GLOBE MANGEL.**

First Prize at the GREAT LONDON DAIRY SHOW, 1911, won by our esteemed customer, P. E. Mead, Esq.



**CARTERS WINDSOR YELLOW GLOBE MANGEL.**

The GLOUCESTER COUNTY CUP, 1911, was won by our esteemed customer, H. Nichols, Esq., entirely with the produce of Carters Tested Seeds.

# CARTERS WINDSOR MANGEL.

## THE BEST YELLOW GLOBE MANGEL IN CULTIVATION.

**CHAMPION PRIZE, LONDON DAIRY SHOW, 1911, out of 50 entries.**

**Royal South Bucks Agricultural Association, 1911.—HIS MAJESTY THE KING'S 20 GUINEA CUP, awarded to our customer, T. W. Purser, Esq., of Colnbrook, who grew Carters Windsor Mangel.**

*Amongst other important awards Carters Windsor Mangel has won during 1911:—*

**Gloucester Root Show.—The 20 Guinea County Cup for Best 20 acres of Roots, and Three First Prizes.**

**Tring Agricultural Show.—First for Best General Root Crop, 1911. Silver Medal for Best 12 Roots of any variety, and Two Bronze Medals, 1910.**

**Royal East Berks.—Two First and several other Prizes.**

**Norwich Fat Stock Show.—First and Second Prize for Globe Mangels open to the County of Norfolk.**

**Bristol.—Three First Prizes, including First for Best General Root Crop.**

**Basingstoke.—First Prize, Best General Root Crop, and First for Globe Mangel.**

**Wroughton.—Six First Prizes (the whole of the Prizes offered for Globe Mangels).**

**Wokingham.—Two First Prizes, Best General Root Crop.**

**And over 50 other First Prizes at leading Shows throughout the country.**

Every succeeding season proves this splendid Yellow Globe to be the finest ever introduced. It is now so well known in the field, stock yard, or at Shows—where it invariably secures the highest awards—that it needs no superfluity of words to describe its many merits.

**Highest Feeding Value.**—By continual re-selection under the "Carter" method, we have now been able to increase the food solids of the Windsor Mangel to a point never before attained, whilst the small percentage of water ensures a hard solid flesh, which will keep sound for months without rotting.

**A Heavy Cropper.**—As a heavy yielder Carters Windsor Mangel has no equal, it having produced record crops in nearly all the important root competitions, whilst the ease with which the clean growing root can be pulled is not the least advantage of this popular variety.

**Champion Prize Taker.**—As a winner of prizes at Shows and Root Competitions this heavy-cropping Yellow Globe Mangel is well known to all up-to-date agriculturists, and the praise it has won is fully merited by its all-round high qualities. At all the leading Shows where roots are shown, Carters Windsor Mangel will be found among the Prize Winners, and during the past few years more Championships and First Prizes have been won for our customers with Windsor Mangels than with any other variety. Its beautiful colour and appearance, even form, and solid flesh render this an ideal root for exhibition.

Where only one sort of Mangel is grown we particularly recommend Windsor Yellow Globe as a good all-round variety.

## CARTERS WINDSOR MANGEL.

**The Prize Taker. The Crop Maker. The Money Saver.**

**Tested Seed Re-selected by the "Carter" Method of Analysis.**

Price **1/6** per lb. ; **155/-** per cwt.





**HIS MAJESTY THE KING'S CUP**

**VALUE 20 GUINEAS  
ROYAL EAST BERKS. AGRI. ASS.**

**The  
HEAVY  
CROPPER**







**CARTERS**  
**WINDSOR**  
**YELLOW GLOBE MANGEL**



## **CARTERS YELLOW GLOBE MANGEL.**

The high reputation acquired by Carters Windsor Mangel, which has now become known as the **"Finest Yellow Globe in Cultivation,"** indicates that this type of root is each year becoming more popular. At the same time the increased number of owners of small holdings and agriculturists farming small estates has occasioned a demand for a mangel possessing in a slightly lesser degree the qualities of our Windsor Mangel which enables it to be sold at a lower price. To meet these requirements we have selected the Yellow Globe as a good all-round Mangel, suitable for all stock feeding purposes, besides being readily adapted to varying soil and climatic conditions.

This we have re-selected and improved, confident that it will be found superior and in consequence more profitable than the original type.

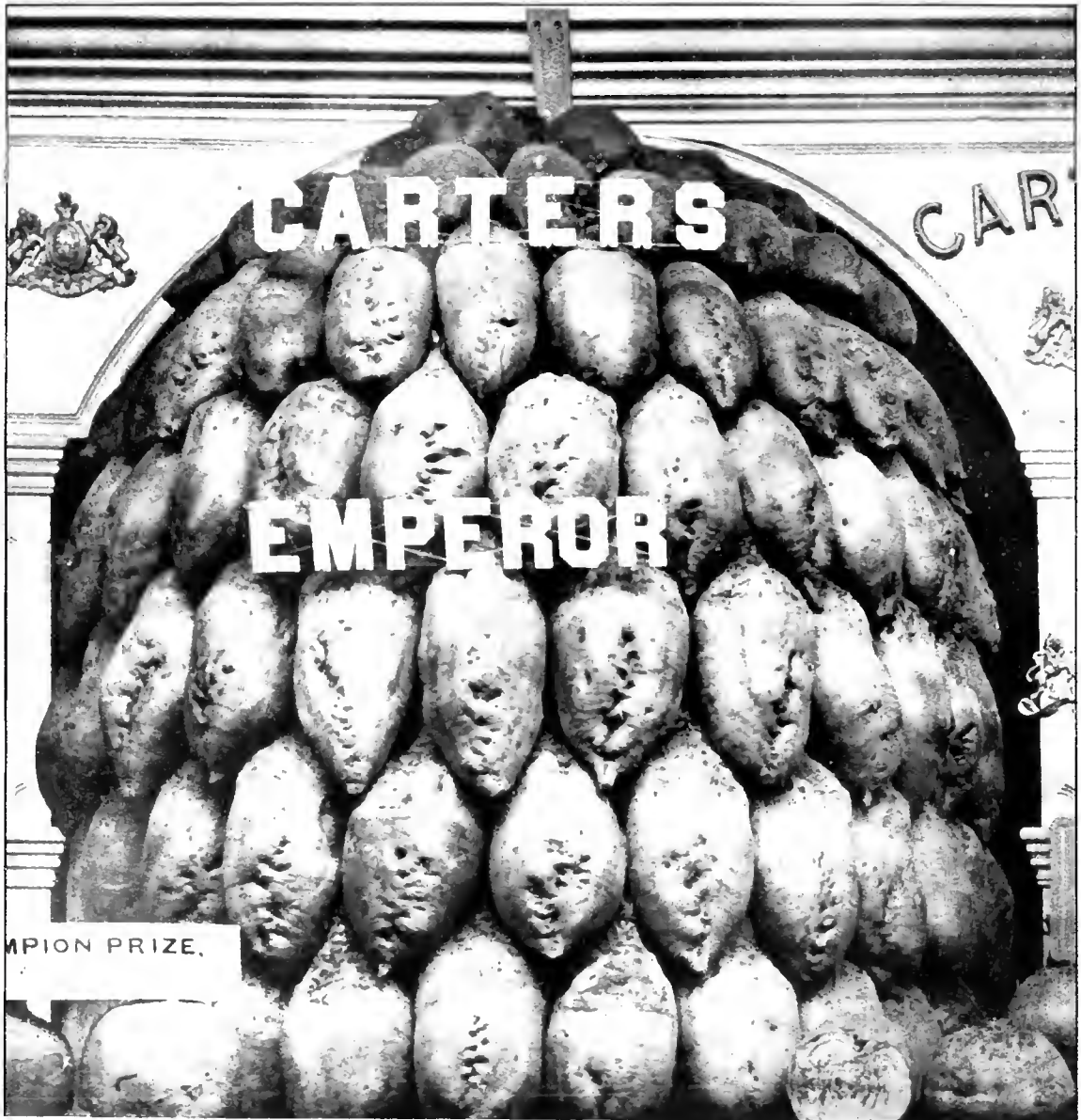
The largely increased feeding value of our new Yellow Globe Mangel, though not so high as in the Windsor Mangel, is a great advance upon the ordinary variety.

### **CARTERS YELLOW GLOBE.**

Price 1/- per lb.      105/- per cwt.

Sow 8 lbs. per acre.





PHOTOGRAPHED ON OUR STAND AT THE SMITHFIELD CATTLE SHOW, 1911.

## CARTERS RED EMPEROR MANGEL.

**A heavy cropping variety, with high feeding value, density of flesh, digestible solids, and keeping quality. A splendid root for the Dairy Farmer or Fat Stock Raiser.**

This popular intermediate Mangel still maintains its place as a favourite with agriculturists farming comparatively shallow soils for which it is specially recommended, though it is equally, if not more, suitable for deep medium or heavy loams, on which class of soils exceptionally heavy crops have been produced.

Its rich solid flesh renders Carters Red Emperor a valuable Mangel for Fat Stock raisers, who require the maximum bulk of feed with the maximum of digestive food solids, and its compact shape ensures the smallest possible amount of waste.

**Tested Seed Selected under the "Carter" Method of Analysis.**

**Price 1/6 per lb. ; 155/- per cwt.**



## **CARTERS GOLDEN TANKARD MANGEL.**

**Over 25 First Prizes awarded at Important Shows during 1911, also First Prize, London Dairy Show, 1910, out of 40 Competitors.**

This is a favourite with Dairy Farmers on account of its richly-coloured yellow flesh and milk-producing qualities. It gives a heavy crop and is a variety which is easily pulled whilst it matures rather earlier than the Globe varieties. It is, however, important that a well selected strain be obtained as it quickly deteriorates. We, therefore, take the greatest care to grow our stocks only from picked "Mother Roots" so that the highest standard of the type is retained.

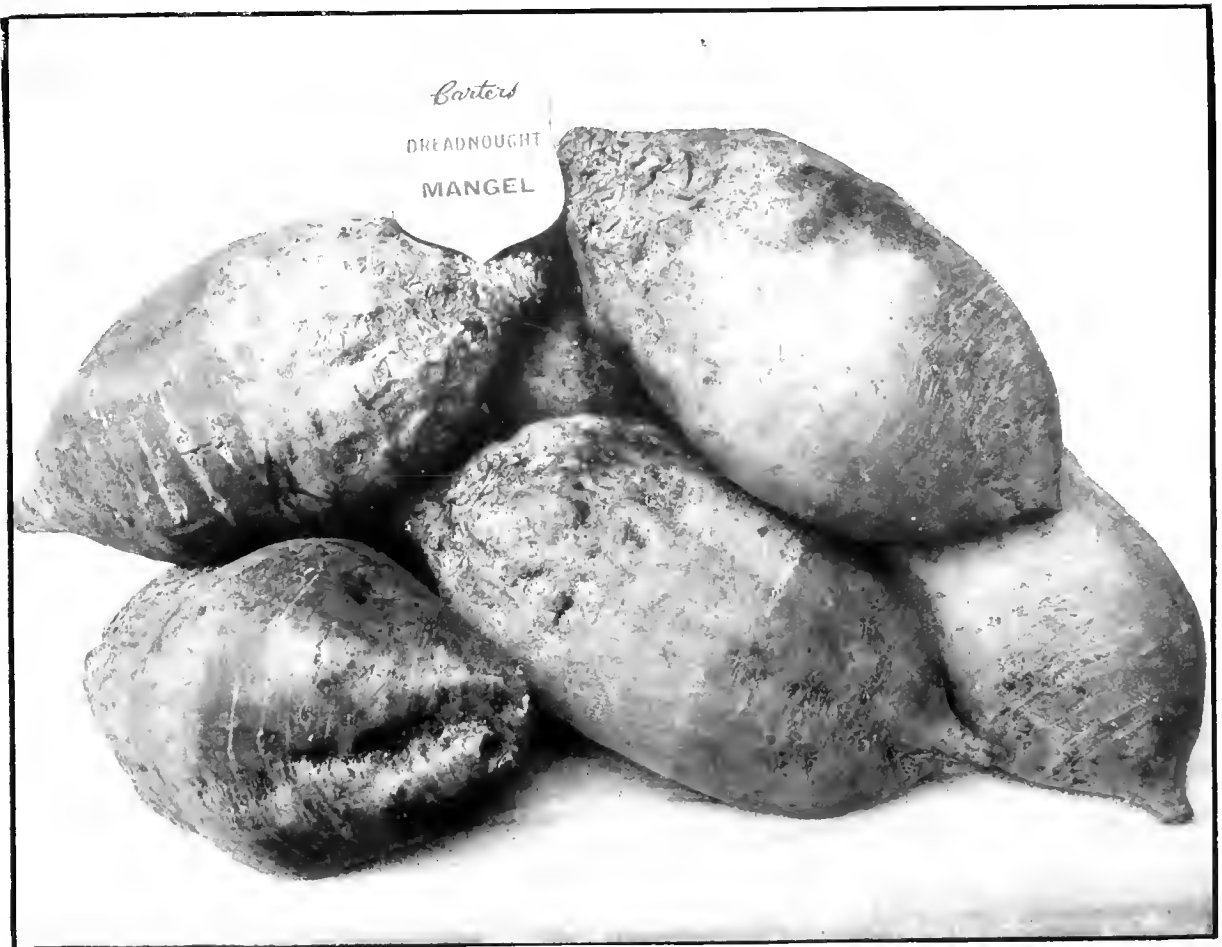
At the Smithfield Cattle Show, 1911, we had an immense pile of **Carters Golden Tankard Mangel**, the high quality of which elicited general admiration. These had been grown by one of our customers under ordinary methods of cultivation, and proved the good quality of roots that can be obtained from our ennobled strains of Mangel Seed. **Carters Golden Tankard Mangel** was included in the Collection of Roots which gained the Silver Cup at the Ilford Agricultural Show, 1911.

**Tested Seed Selected under the "Carter" Method of Analysis.**

**Price 1/3 per lb. ; 132/- per cwt.**



# CARTERS DREADNOUGHT MANGEL.



This fine intermediate oval-shaped Yellow Mangel has been introduced and selected by us under the "Carter Method of Root Selection" according to feeding value and keeping quality; it is remarkably free from rootlets and possesses a small top and fine shoulder, whilst it produces an enormous weight per acre of well-shaped clean roots.

The white flesh is most palatable and very nutritious, and like most intermediate varieties is adaptable to almost any class of soil, and gives good results on shallow soils. It withstands the drought and from its peculiar habit this variety may be set closer in the rows than other sorts of Mangel.

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**Tested Seed selected under the "Carter" Method of Analysis.**

**Price  $1/3$  per lb.; 132/- per cwt.**

## CARTERS GOLDFINDER MANGEL.

This splendid variety possesses a high feeding value and is grown by many Agriculturists who prefer a yellow-fleshed Mangel. In Carters **Goldfinder** the flesh lies in rings graduating from a rich golden colour to a pale yellow, somewhat similar to the Golden Tankard. It is a variety which is easily pulled and will produce under favourable conditions huge crops.

**Tested Seed Selected under the "Carter" Method of Analysis.**

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Price **1/-** per lb. ; **105/-** per cwt.

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## CARTERS GOLDEN INTERMEDIATE MANGEL.

The largely increased number of **First Prizes** awarded during 1910 to this variety, including several **Firsts** at Basingstoke and other important Root Shows, indicates the popularity which this Mangel has acquired. During the past season this favourite Exhibitors' variety was to be seen at nearly all the important Shows, and in almost every case **Carters Golden Intermediate Mangel** represented the most perfect type of its class. This variety may be linked with our Golden Tankard Mangel in respect to quality, as they are very rich in saccharine matter and feeding value. The skin is of a deep orange yellow colour, the flesh partaking very much of the same tint, and possessing the same rich flavour of the Golden Tankard variety so much relished by stock. It also imparts the valuable property of thickening cream to a greater extent than has been noticed when other varieties of Mangel have been given to stall-fed cows.

**Tested Seed Selected under the "Carter" Method of Analysis.**

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Price **1/3** per lb. ; **132/-** per cwt.

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## CARTERS IMPROVED MAMMOTH LONG RED.

**First Prize, London Dairy Show, 1909.** As a weight producer on light soils this variety has few equals, and on this account alone many farmers grow a few acres in order to feed dairy stock during a long winter.

During the past dry summer the Long Red Mangels did particularly well on all soils when shallower rooted varieties mostly failed.

**Tested Seed Selected under the "Carter" Method of Analysis.**

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Price **1/-** per lb. ; **105/-** per cwt.

# LIST OF THE BEST MANGELS.

Selected and Tested by the "Carter" Method of Analysis (see page 8).

	TESTED Per cwt. s. d.	SEED, Per lb. s. d.
<b>CARTERS RED WINDSOR.</b> —A new red skinned counterpart of our well-known Windsor Yellow Globe (see pages 10 and 11). Stock very limited...	—	2 6
<b>CARTERS GOLDEN WINDSOR.</b> —Our latest introduction (see page 11)...	—	2 6
<b>CARTERS WINDSOR YELLOW GLOBE.</b> —Considered to be the heaviest cropping and best keeping Mangel in cultivation (see pages 12 to 15) ...	155 0	1 6
<b>CARTERS YELLOW GLOBE.</b> —A re-selected stock of the ordinary Yellow Globe variety (see page 16) ...	105 0	1 0
<b>CARTERS RED EMPEROR.</b> —A popular Intermediate variety and heavy cropper (see page 17) ...	155 0	1 6
<b>CARTERS GOLDEN TANKARD.</b> —"The Dairy Farmers' Favourite" (see page 18). Champion Prize, London Dairy Show, 1910 ...	132 0	1 3
<b>CARTERS DREADNOUGHT.</b> —A new yellow Intermediate Mangel with increased feeding properties (see page 19) ...	132 0	1 3
<b>CARTERS GOLDFINDER.</b> —Flesh of a rich golden colour, indicative of high feeding quality (see opposite page) ...	105 0	1 0
<b>Carters Warden.</b> —Has long been recognised as a very heavy cropping white-fleshed yellow globe Mangel ...	105 0	1 0
<b>CARTERS GOLDEN INTERMEDIATE.</b> —Skin and flesh of a deep orange colour and of the very best type. Strongly recommended for butter dairies (see opposite page) ...	132 0	1 3
<b>CARTERS IMPROVED MAMMOTH LONG RED.</b> —First Prize, London Dairy Show, 1909 (see opposite page) ...	105 0	1 0
<b>Champion Yellow Intermediate.</b> —Somewhat similar to above and attaining great weight ...	105 0	1 0
<b>Golden Globe</b> ...	105 0	1 0
<b>Corners Devonshire Small-topped Yellow Globe.</b> —Well known in the West ...	105 0	1 0
<b>Monarch.</b> —A good heavy yellow globe ...	132 0	1 3
<b>Long Yellow</b> ...	105 0	1 0
<b>Carters Elephant.</b> —Coarser in all respects than our Windsor or Warden Globe ...	85 0	0 10
<b>Carters Improved Sugar Mangel.</b> —A distinct novelty. Specially selected for its sugar contents ...	—	1 6

Sow 3 lbs. to the acre.

## HINTS ON THE CULTIVATION OF SWEDES AND TURNIPS.

**Qualities.**—The Turnip and Swede belong—as do rape, kale, kohlrabi, and cabbage—to the natural order *Crucifera*, genus *Brassica*, and to the farmer are perhaps the most useful members of this large family.

Every one of the leading varieties are enumerated in our annual catalogues. We desire specially to refer, however, to the Elephant class of purple-top Swedes and the Invicta class of bronze-top Swedes, which produce an average of ten tons per acre more than other sorts; and, among white Turnips, to the Imperial Green Globe, which is the hardiest of the white-fleshed Turnips, and, if not sown too early, will stand frost almost as well as the Swede. It is found to be most valuable for feeding off with ewes and lambs, and does not require such good land as the Swede to bring it to perfection. Swedes are less likely to be attacked with the disease known as finger-and-toe than common Turnips. They, however, grow more slowly, and require better land in higher condition, but they resist frost better than Turnips do. They contain less water, and are proportionately more nutritious.

**Soil.**—The soil best suited to the Turnip must depend to a great extent upon the climate. Where the climate is moist, we shall probably get the best results on light lands, but where the climate is dry, a certain proportion of clay will be likely to add to the produce, by reason of the increased power it imparts to the soil of retaining moisture. The best soil is a free working-loam.

**Sowing Season.**—The seed-time for Swedes is from the middle of May to the middle of June. In the south of England it is advisable to sow a fortnight later than in the north. Common Turnips will follow as soon after as convenient. As a general rule, it should be remembered that, where Turnips are required to stand frost, seed-time should be deferred as long as it is safe to do so.

**Manure.**—A liberal dressing of farmyard manure from cake-fed beasts is always desirable. The quantity and bulk per acre will depend upon the resources at hand, and the character of the soil. Sometimes in wet seasons heavy dressings of manure will tend to force Swedes out of character, and will consequently produce abnormal growth of necks and fangy roots. Eight tons of manure per acre is considered too little, while 30 tons is too great for the needs of the root crop, so that an unexhausted portion would remain in the land for the next crop. It is always advisable to supplement with from 3 to 5 cwt. of artificials per acre—either dissolved bones or some specially prepared Turnip manure.

**Keeping.**—Turnips are especially useful for feeding off on light lands where the even treading and distribution of manure by the sheep are always followed by the best results to the succeeding crop, and more especially if cake or hay is given with the roots. For this purpose—unless the sheep are folded on the growing crop—the roots should be stored in small heaps at convenient distances throughout the field, and covered with the tops, or a little litter; with this arrangement they will be handy for the shepherd, and also save carting. We advise their being cut in fingers, and fed in troughs, as being the most economical way of using them.

**Disease and Vermin.**—Finger-and-toe, Club-root, or Anbury are the most troublesome diseases to which Turnips are liable. The lighter classes of soils seem to be most subject to them, although they may occur on any soil, but less frequently if a pedigree stock of vigorous constitution is sown. To plough land wet favours the development of finger-and-toe.

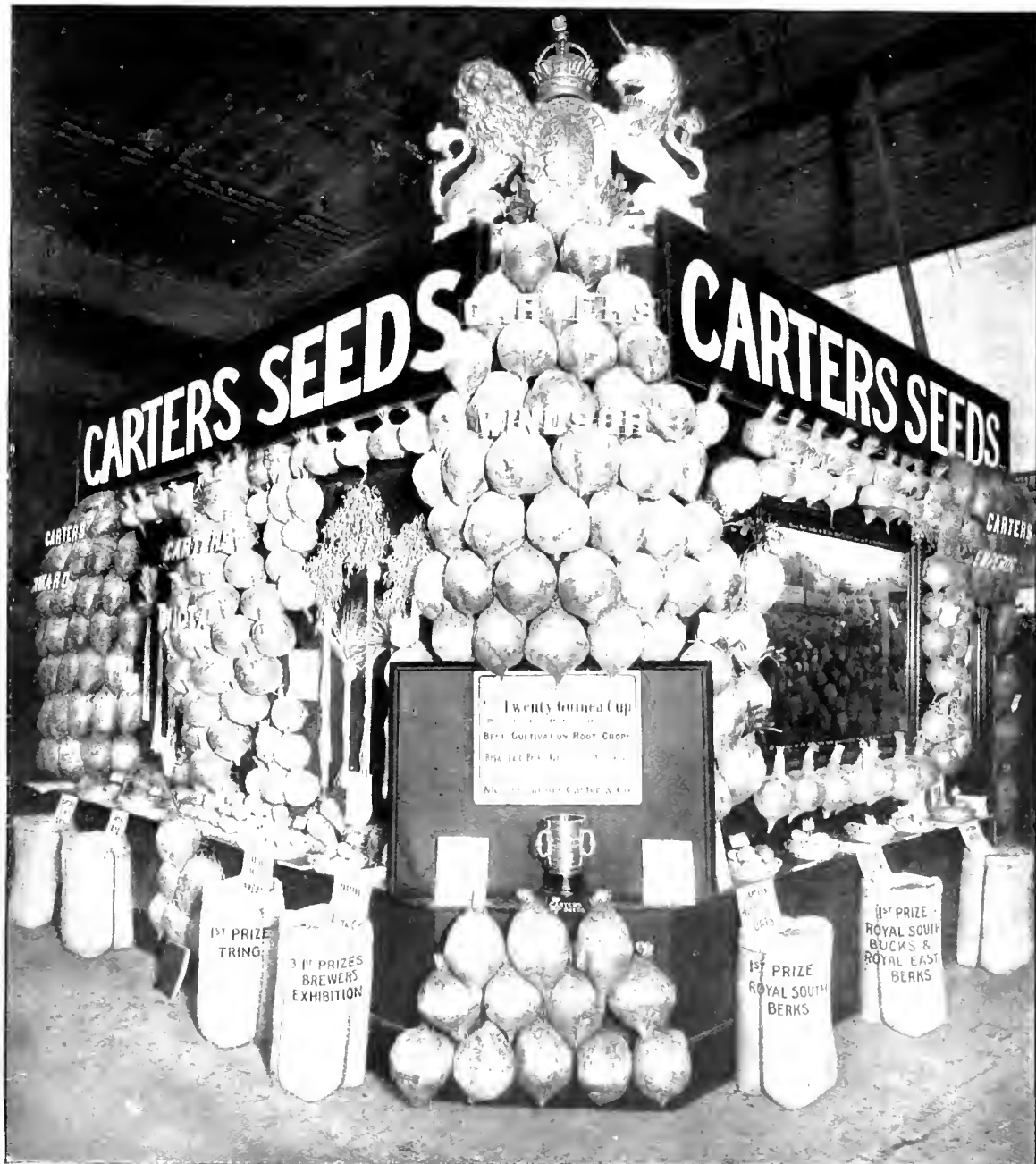
The too frequent recurrence of the same crop is another cause. Hence the value of having a variety of root crops to resort to, or— if it is not expedient to put the affected field into mangel, carrots, parsnips, or other root crops—it will answer just as well to take a crop of potatoes.

Lime is found to be one of the best applications for preventing or curing disease. The best way to apply it is to spread 4 or 5 tons per acre on the autumn furrow, and then to well harrow in the lime, so as to mix it thoroughly with the soil. Marl is found to be of use on some light lands, its beneficial effects being partly due to the lime it contains.

The increasing prevalence of finger-and-toe in recent years is believed to be due to the abandonment of the practice of liming the soil, which was once so general.

The Turnip fly or flea-beetle (*Phyllotreta nemorum*) is a pest which, as everyone knows, attacks the young plant before it gets into the rough leaf. It is most troublesome in dry weather, and operates by puncturing the seed-leaf on the under side, thus causing it to pucker and eventually to wither. When we consider how greatly a plant depends upon its leaves, we can easily understand what a large amount of injury may be done by this, or any other insect which feeds upon these organs. It will be useful to mention one or two recipes which have been recommended for the destruction of the Turnip-fly. Two bushels of freshly slaked lime, 6 lbs. of sulphur, 10 lbs. soot, well powdered and mixed so that it may adhere to the young plants; this quantity is sufficient for two acres, drilled at 27 inches and should be applied when the dew is on the leaves. Freshly slaked lime is also used alone, or mixed with road-scrappings. A light wooden roller if used at daylight when the dew is on the plants is a good check, as the operation smothers the underside of the leaves with dust and dirt, and the vermin do not like it.





CARTERS ROYAL EXHIBIT AT THE LONDON DAIRY SHOW, 1911.

## CARTERS PRIZES AND DUPLICATIONS.

In addition to giving Special Prizes for Roots, the produce of our Seeds, we **DUPLICATE ALL OTHER FIRST AND SECOND PRIZES offered for Roots that appear in the Prize List.**

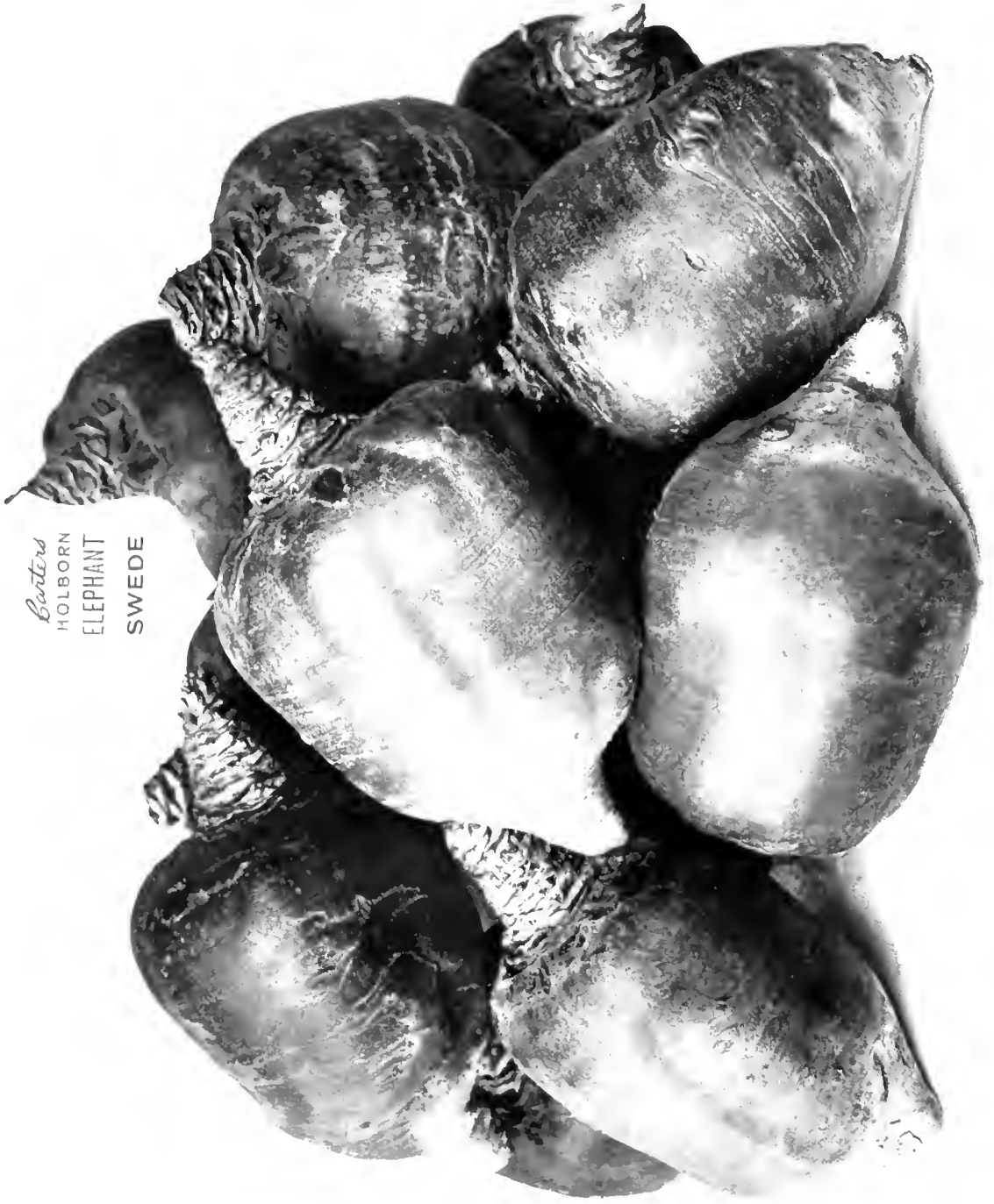
**Providing** that all the Roots entered by the Exhibitor are entirely the produce of **CARTERS TESTED SEEDS** purchased direct from us during the spring of 1912, and also that notice is given to us in writing of our customer's intention to exhibit, a week before the Show takes place.

**Example.**—If a customer of ours takes a First or Second Prize of 10 or 5 guineas, in any class other than our own classes, we shall add to that Prize 10 or 5 guineas respectively, providing the whole of the Root exhibits entered by the Exhibitor at the Show are entirely grown from Seeds purchased from us during the spring of 1912.

In no case will the added Premium exceed the total of the sum expended with us for Root Seeds, Grasses, and Clovers during 1912 (Wheat, Oats, Barley, and Peas not to count). This applies not to each Show at which a customer competes, but covers the whole of his prize winnings for the season.

In order to obtain this duplication of Prizes, Exhibitors must conform to these simple conditions.

*Carters*  
HOLBORN  
ELEPHANT  
SWEDE



**CARTERS HOLBORN ELEPHANT SWEDE.** Awarded more than 200 Challenge Cups, Medals, and First Prizes.

# CARTERS HOLBORN ELEPHANT SWEDE

**A heavy cropping Purple Top Swede of the highest feeding value.**

It is now several years since we introduced this fine Purple Top Swede, and it has, during that time, acquired a large popularity amongst Agriculturists and Flockmasters, both on account of the heavy crops which may be grown, often averaging from 60 to 80 tons per acre, and also by reason of its suitability for folding.

The root grows well out of the ground, is always sound and solid, and the variety adapts itself to almost any soil. Each year we receive numerous flattering reports from growers as to the advantages of our **Holborn Elephant Swede**, and we believe that this now shares with our Holborn Invicta Swede the reputation of being the most popular Swede grown.

This fine Swede has been awarded over 30 First Prizes during the past year, and still remains one of the best sorts for exhibition, feeding, or keeping.

## WHAT GROWERS SAY OF CARTERS HOLBORN ELEPHANT SWEDE.

### ENGLAND.

"I am quite satisfied that Carters Holborn Elephant Swede is the heaviest cropper and best keeping variety on the market."—R. C., Cumberland.

"I am quite satisfied that Carters Holborn Elephant Swede is a first-class variety, and it will take something very good to beat or equal it, as I consider it the best sort I have grown both for weight per acre and quality."—T. B., Northampton.

"Carters Holborn Elephant Swede gave every satisfaction, yielding nearly 50 tons per acre, and they have kept well."—J. J. G., Worcester.

"Carters Holborn Elephant Swede is a good cropper, and its greatest advantage is that it is easily pulled and comes off very clean."—F. W. C., Cambridge.

"Carters Holborn Elephant Swede are really good this season. I won a prize in acreage class at South Berks Agricultural Show, against strong competition."—W. C., Berks.

"My crop of Carters Holborn Elephant Swede is excellent, and is considered by judges to be the best in the neighbourhood."—J. B., Devon.

### WALES, IRELAND, AND SCOTLAND.

"Carters Holborn Elephant Swede has given me great satisfaction, and in a field competition the judges were of opinion that the crop was the heaviest they had seen."—J. D., Wales.

"Carters Holborn Elephant Swede has given me entire satisfaction, being an abundant crop in this unfavourable season."—C. B., Ireland.

"Carters Holborn Elephant Swede has yielded the best crop I have had for many years."—J. A., Ireland.

"Carters Holborn Elephant Swede gives a good crop; very sound roots, of excellent quality."—M. C., Scotland.

### ABROAD.

Hundreds of bushels of Carters Holborn Elephant Swede are exported annually to Russia and Scandinavia, Canada, Australasia, United States, and other countries, in all of which this Swede has proved itself to be a reliable cropper and disease resistant.

"The Swedes (Carters Holborn Elephant) turned out splendidly, and nothing had been seen like them before in this neighbourhood."—A. G. T., Taranaki, New Zealand, 1910.

*We have received many other similar testimonials from various countries.*

In the official Swede variety trials undertaken in 1910, at the College of Agriculture, Holmes Chapel, Cheshire, **Carters Holborn Elephant Swede** not only produced the **largest yield per acre**, but **more than 12 per cent. above the average yield** of all the ten other leading varieties of other firms grown.

## CARTERS HOLBORN ELEPHANT SWEDE.

Tested and Selected by the "Carter" Method of Analysis.

Price **1/-** per lb.; **45/-** per bushel (52 lbs.).



# CARTERS HOLBORN KANGAROO SWEDE.

Many County and Borough Councils together with other public authorities have, from time to time, conducted experiments in root growing, for the purpose of selecting the most suitable varieties.

## DEPARTMENT OF AGRICULTURE AND TECHNICAL INSTRUCTION FOR IRELAND.

In the field experiments conducted by the Irish Board of Agriculture **Carters Kangaroo Swede** gave an average yield of **25 tons per acre**, whilst the Old Green and Purple-Top Swedes only gave about 22 tons.

## NORTHUMBERLAND COUNTY AGRICULTURAL STATION.

In the official Swede variety trials undertaken at the Northumberland County Agricultural Station, Cockle Park, it was shown that during the past seven years the average amount of dry matter (solid food) contained in Carters Holborn Kangaroo was 12.47 per cent. The total amount of dry matter produced from this variety in 1909 was no less than 1 ton  $\frac{3}{4}$  cwt. from 12,760 roots; this is a higher percentage per root than that of any other Swede grown in the trial.—*Vide* Report, 1910, page 56.

## CHESHIRE AGRICULTURAL COLLEGE.

**Carters Kangaroo Swede** came out top in the Swede trials.

## STAFFORDSHIRE COUNTY COUNCIL.

In the trials of Swedes at Brewood, **Carters Kangaroo** beat 18 other varieties both for weight and quality.

## EAST AND WEST RIDING JOINT AGRICULTURAL COUNCIL.

Field experiments, conducted at the Yorkshire College, Leeds. In a trial of 20 varieties of Swedes, the plot of **Carters Kangaroo** yielded over 11 tons of roots, as against that of the lowest, which was 7 tons 9 cwt.

*The following private opinions also confirm the superiority of Carters Kangaroo Swede:—*

- GLOS.** "I have an excellent crop of Carters Kangaroo Swedes, not less than 30 tons per acre, and my shepherd says they are the best he has ever used for sheep."
- SALOP.** "Carters Holborn Kangaroo were very good, and stood the winter better than any I had."
- YORKS.** "I took First Prize with Holborn Kangaroo Swedes at the Stamford Bridge Club; also the Sulphate of Ammonia Prize, value £5, with the same seed. My brother took First Club Prize with 37 tons 15 cwt. 2 qrs. 8 lbs., grown from your Holborn Kangaroo Seed."
- "Carters Holborn Kangaroo Swede produced me the best crop I have ever grown. I intend sowing nothing else this season."
- "I have grown Carters Holborn Kangaroo Swede ever since it was introduced, and think it improves both in size and quality."
- SCOTLAND.** "We are using our Kangaroo Swedes, and there is not an unsound one amongst them (May)."

*Over Twenty First Prizes were awarded during 1911.*

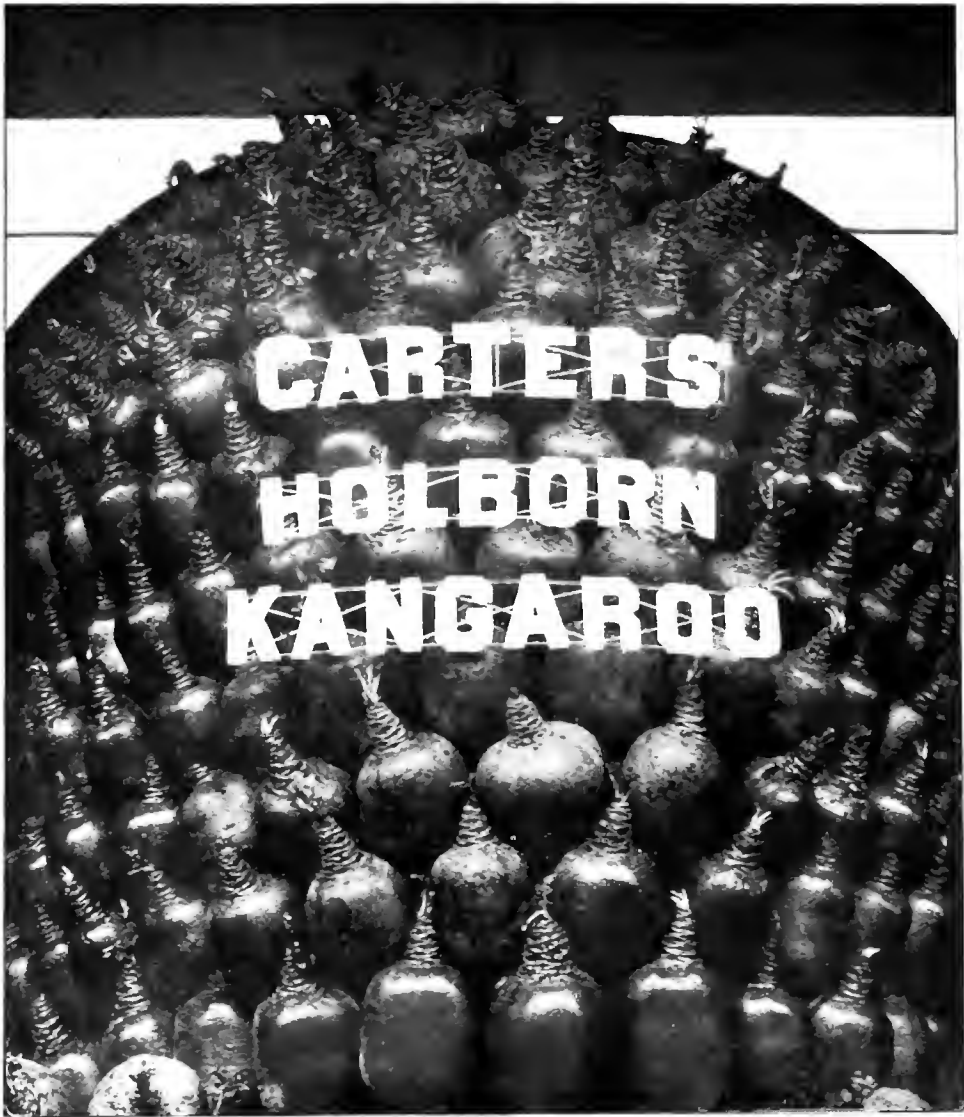
**First Prize, Derwent.**  
**First Prize, Sheriff Hutton.**  
**First Prize, Harewood End.**  
**First Prize, York.**  
**First Prize, Northampton.**  
**First Prize, Lancaster.**  
**First Prize, Stamford Bridge.**  
**First Prize, Basingstoke.**

**First Prize, Emley,**  
**First Prize, Penrith.**  
**First Prize, Penistone.**  
**First Prize, Pontefract.**  
**First Prize, St. Asaph.**  
**First Prize, Tong.**  
**First Prize, Carnforth.**  
**First Prize, Hemel Hempstead.**

Tested and Selected under the "Carter" Method of Analysis.

**ENNOBLED STRAIN.**

Price **1/-** per lb.; **45/-** per bushel (52 lbs.).



### **CARTERS HOLBORN KANGAROO SWEDE.**

This fine Green-Top Swede increases in popularity each season, and it now has an enormous sale.

As with Carters other Holborn varieties of Swedes, Carters Holborn Kangaroo is the exhibition and ennobled type of the variety, and a perfected selection after many experiments of what is now recognised as the hardest and best disease-resisting Swede in cultivation.

Very extensive acreages are grown in the Northern Counties, where it has proved a great boon to the hill farmers, as its hardiness well adapts it for the bleak and mountainous districts of the North of England and also in the Yorkshire Wolds.

It is becoming extensively grown in Ireland, where it has proved far superior to the old green-top sorts (see opposite page).

As a Swede for growing on poor, light, shallow soils, or on farms where roots are largely fed off on the ground, there is not a more suitable variety.

**Tested under the "Carter" Method of Analysis.**

**Ennobled Seed, price 1/- per lb. 45/- per bushel (52 lbs.).**

# CARTERS HOLBORN INVICTA SWEDE.

## "The best keeping Swede ever introduced."

The general satisfaction expressed by our customers in all parts of the country shows that Carters Holborn Invicta is far superior in quality to any other variety of Swede, and still remains the most popular Swede in cultivation.

At the Canadian Agricultural Experimental Station it has proved the heaviest in weight and most uniform in shape, and we now receive large orders for this variety from all parts of the World where Swedes are grown.

Both at home and abroad it is considered the most consistent variety of any Swede, always growing true to type, and it has no equal either for high feeding value or for keeping qualities. This claim is fully borne out by the published results of the various tests carried out by County Councils and other public bodies, where it almost invariably heads the list in yield, weight, and feeding value, and it has been officially referred to as "The best Swede that was ever introduced."

In the Midlands and western districts of England large acreages are grown, and wherever Swedes are grown Carters Holborn Invicta Swede is known as the highest type of Swede.

The root is purplish-bronze in colour, and even shaped with a close set neck, whilst its feeding and keeping qualities are unapproached by any other variety.

Medals, First Prizes, and other honours have been showered on this popular Swede at all Agricultural Shows throughout the country.

## CARTERS HOLBORN INVICTA SWEDE FOR THE DAIRY FARMER.

Each year we endeavour to improve the feeding quality of this fine root, and we believe we have now increased the food solids to a higher degree than that of any other Swede.

The three letters we print below amply prove that our endeavours to improve the feeding value of this Swede have met with practical success.

"Your Holborn Invicta Swede certainly answers the description your representative gave of it. Being Dairy Farmers we consider that the most important feature of this Swede is that it can be given to milking cows in any quantity without any complaint being made about the milk having an objectionable flavour."—B. & W. HARTOP, Luton, March 6th, 1911.

"The following may interest you, as it is remarkable evidence of the superiority of your Holborn Invicta Swede. I ordered, as I supposed, enough seed to sow fourteen acres, but it proved only sufficient for ten, so I bought from a local firm enough to sow the other four acres. The Invicta gave a fine crop, and were all pulled except three drills adjoining the four acre piece. This I fed off with ewes and lambs, the latter provided with lamb hurdles so that they could get through and fatten on the greens, but not a green of the locally grown seed would they touch until they had not only consumed the green of the Invicta, but nearly the whole of the root."—W. CHERTON, Henley-on-Thames, April 22nd, 1911.

"It is the best Swede I have ever grown, and the best I have ever met with. You know that my Mangel crop (not Carters) was a complete failure last year, and I had to feed my dairy cows on Swedes, giving them about 46 lbs. each per day. Well, all that quantity of Swedes (Carters Invicta) did not taint the milk, not in the very least. My two dairymen could detect no turnip taste or smell in the milk, and they would hardly believe me when I told them how my cows had been fed for three months—till the beginning of February. When the Swedes were finished I had to buy Mangels, and immediately I started feeding on them, giving the same weight per cow, the milk dropped three gallons, the other foods being the same. The milk did not rise again, so I concluded that these Swedes are better for milk production than Mangels. A neighbour of mine has grown your Holborn Invicta Swedes these last two years, and cracks them up as being the best for sheep and for market."—JAS. A. OSBORNE, May 3rd, 1909.

Such spontaneity of expression as the above is a greater proof of the merits of Holborn Invicta Swede than any words we could mention, and these letters are only examples of hundreds received by us, all testifying to the excellent properties of this popular Swede.

**CARTERS HOLBORN INVICTA.—Our ennobled strain,** selected under the "Carter" method to ensure maximum quality with maximum quantity (see page 8).

1 lb.	7 lbs.	14 lbs.	28 lbs.	Bushel (52 lbs.).
1/6	9/6	18/6	36/6	70/-

**Sow 4 lbs. per acre.**

*Carters*

RAYNES PARK, LONDON, S.W.—1912.



# CARTERS HOLBORN INVICTA SWEDE.

Awarded GLOUCESTER CORPORATION CHALLENGE CUP.

CHAMPION PRIZE,  
LONDON DAIRY SHOW.

TWO BRONZE MEDALS,  
TRING, 1910.

FIRST PRIZE, BIRMINGHAM.

Also included in the Collection of Roots which won the Silver Cup at the Ilford Agricultural Show.

First Prize ... ..	Royal East Berks.	Five First Prizes...	Wrrington.
First Prize ... ..	Royal South Bucks.	First Prize ... ..	Middlesex.
First Prize ... ..	Cheltenham.	First Prize ... ..	Thame.
First Prize ... ..	Royal East Bucks.	First Prize ... ..	Somerford.
Three First Prizes	Gloucester.	First Prize ... ..	Henley.
Four First Prizes	Tring.	Four First Prizes...	Llantarnam.
First Prize ... ..	Royal & Central Bucks.	First Prize ... ..	Avening.
Seven First Prizes	Basingstoke.	First Prize ... ..	Surrey.
Four First Prizes	Harewood End.	First Prize ... ..	South Avon and Stour.
First Prize ... ..	Chiltern Hills.	First Prize ... ..	Taunton.
Three First Prizes	Princes Risborough.	First Prize ... ..	Devizes.
Three First Prizes	West Gloucester.	First Prize ... ..	Calne.
First Prize ... ..	Exeter.	First Prize ... ..	Hemel Hempstead.
First Prize ... ..	Mid. Somerset.	Two First Prizes...	Penistone.
First Prize ... ..	Frome.	First Prize ... ..	Wokingham.
Four First Prizes	Wick.	First Prize ... ..	Stratford-on-Avon.
First Prize ... ..	Dartmouth.	Three First Prizes	Coleshill.
First Prize ... ..	Merionethshire.	First Prize ... ..	Dunster.
First Prize ... ..	Topsham.	First Prize ... ..	Worcester.
First Prize ... ..	Burton.	First Prize ... ..	Brailsford.
First Prize ... ..	Winchcombe.		

## THE SWEDE FOR EXHIBITION.

Beside the above Prizes the letters received from customers confirm Carters Invicta as a splendid variety for exhibiting.

"I won First Prize in the Guildford Root Crop Competition for five acres of Carters Holborn Invicta Swedes, also Second Prize in Open Class, and Second Prize in the Special Class for Roots at the Chertsey Show, being beaten in both cases by another exhibitor of your Holborn Invicta Swede. Indeed this variety was considered the best Swede shown."—A. D., Chertsey, 1909.

Mr. John W. Dryden, who won First Prize for best managed farm in Durham and Northumberland, writes:—"The judges seemed delighted with your Invicta Swedes when they went over my farm. The roots possess size, shape, quality, and are grand keepers. I have won several prizes with them during the past three years."—Seaham Harbour, 1908.

## THE SWEDE FOR HEAVY CROPS.

"We drew 79 large cart loads of your Invicta Swedes from one acre, and, we think, you will agree that this is a heavy crop considering the bad year, but we have had larger and heavier ones in better seasons. We like the light coloured top."—W. H. R., Guildford, 1911.

"They are the finest crop of Swedes I have ever grown in my life, even customers of other seed firms have said they have never seen better. The weight from the whole field averaged well over 50 tons per acre."—T. B., Romford, 1910.

"I grew a nice crop last year of 3 acres of Invicta Swedes, 60 tons per acre, and all good solid roots which kept till May. This year they promise even better."—J. G., Co. Down, 1910.

## THE SWEDE TO KEEP WELL.

"I must say that I am well pleased with your Holborn Invicta Swede; they kept very sound until the time I finished using them, that being the end of May. I cannot speak too highly of them."—P. H., Warrington, 1911.

"The Invicta always give us satisfaction and we find that they come equal, and even more than what you claim them to be. There is nothing to beat them for keeping."—D. P. & Sons, Brecknockshire, 1910.

"I have seen no Swedes which keep so well as your Holborn Invicta; we have used them continually since December, and have only just finished feeding them. In over 100 tons we have not seen a single rotten one and the last were as solid and sweet as the first used."—B. P., Aldborough, 1909.

## CARTERS HOLBORN INVICTA.

The Best Swede for all purposes.

1 lb. Bushel (52 lbs.).  
Price 1/6 70/-

# CARTERS IN











A FIRST PRIZE EXHIBIT OF CARTERS HOLBORN PRIZE-WINNER SWEDE.

## CARTERS HOLBORN PRIZE-WINNER SWEDE.

The Best Globe-shaped Purple-top Swede in cultivation.

Globe-shaped Swedes sometimes thrive better upon certain soils than those of a more bulky description, and we always recommend customers to grow a few acres of this variety, as it is a sterling good Swede, and sometimes gives enormous returns in one season when other varieties prove a comparative failure.

### PRIZES WON IN OPEN COMPETITION DURING 1911.

Three First Prizes, Wington.  
Two First Prizes, Basingstoke.  
First Prize, Harewood End.  
First Prize, Llantarnam.

First Prize, West Gloucester.  
First Prize, Winchcombe.  
First Prize, Avening.  
First Prize, Gloucester.

First Prize, Chiltern Hills.  
First Prize, Royal South Bucks.  
First Prize, South Berks.  
First Prize, Wokingham.

Besides many other First and Second Prizes.

First Prize, Royal Central Bucks.  
First Prize, Taunton.  
First Prize, Dartmouth.  
First Prize, Exeter.

Tested and Selected under the "Carter" Method of Analysis (see page 8)

Price **1/-** per lb.; **45/-** per bushel (52 lbs.).

# LIST OF THE BEST SWEDES.

Sow 4 lbs. per acre.

Seed Tested for germination.

## PURPLE-TOP.

	TESTED SEED.	
	Per bushel (52 lbs.) s. d.	Per lb. s. d.
<b>CARTERS HOLBORN ELEPHANT SWEDE.</b> —Our ennobled strain, selected under the "Carter" method to ensure maximum quality with maximum quantity (for full particulars, description, testimonials, &c., see pages 24 and 25) ... ..	45 0	1 0
<b>CARTERS HOLBORN PRIZEWINNER SWEDE.</b> —Our ennobled strain, selected under the "Carter" method to ensure maximum quality with maximum quantity, a great advance upon methods employed by any other grower (see opposite page) ... ..	45 0	1 0
<b>Skirving's Purple-top Swede.</b> —Well known, very large ... ..	30 0	0 8
<b>East Lothian Purple-Top Swede.</b> —A most excellent sort ... ..	30 0	0 8
<b>Improved Liverpool Swede.</b> —A large variety ... ..	27 0	0 7
<b>Crimson King Swede</b> ... ..	34 0	0 9
<b>Hardy Purple-top Swede</b> ... ..	30 0	0 8
<b>Carters Purple-top Stubble Swede.</b> —Large, nutritious ... ..	34 0	0 9
<b>Carters Elephant Swede.</b> —A useful stock ... ..	34 0	0 9
<b>Giant King Swede</b> ... ..	38 0	0 10
<b>Bangholm Swede.</b> —A popular Scotch variety ... ..	30 0	0 8
<b>Champion Swede.</b> —A good Globe Swede ... ..	30 0	0 8
<b>Monarch Swede</b> ... ..	34 0	0 9
<b>Best of all Swede</b> ... ..	38 0	0 10
<b>Universal Swede</b> ... ..	38 0	0 10
<b>Superlative Swede.</b> —Ennobled Strain ... ..	45 0	1 0

## BRONZE AND GREEN-TOP.

**CARTERS HOLBORN INVICTA SWEDE.**—Our ennobled strain, selected under the "Carter" method to ensure maximum quality with maximum quantity. "The most popular Swede in cultivation" (see pages 28 to 31)

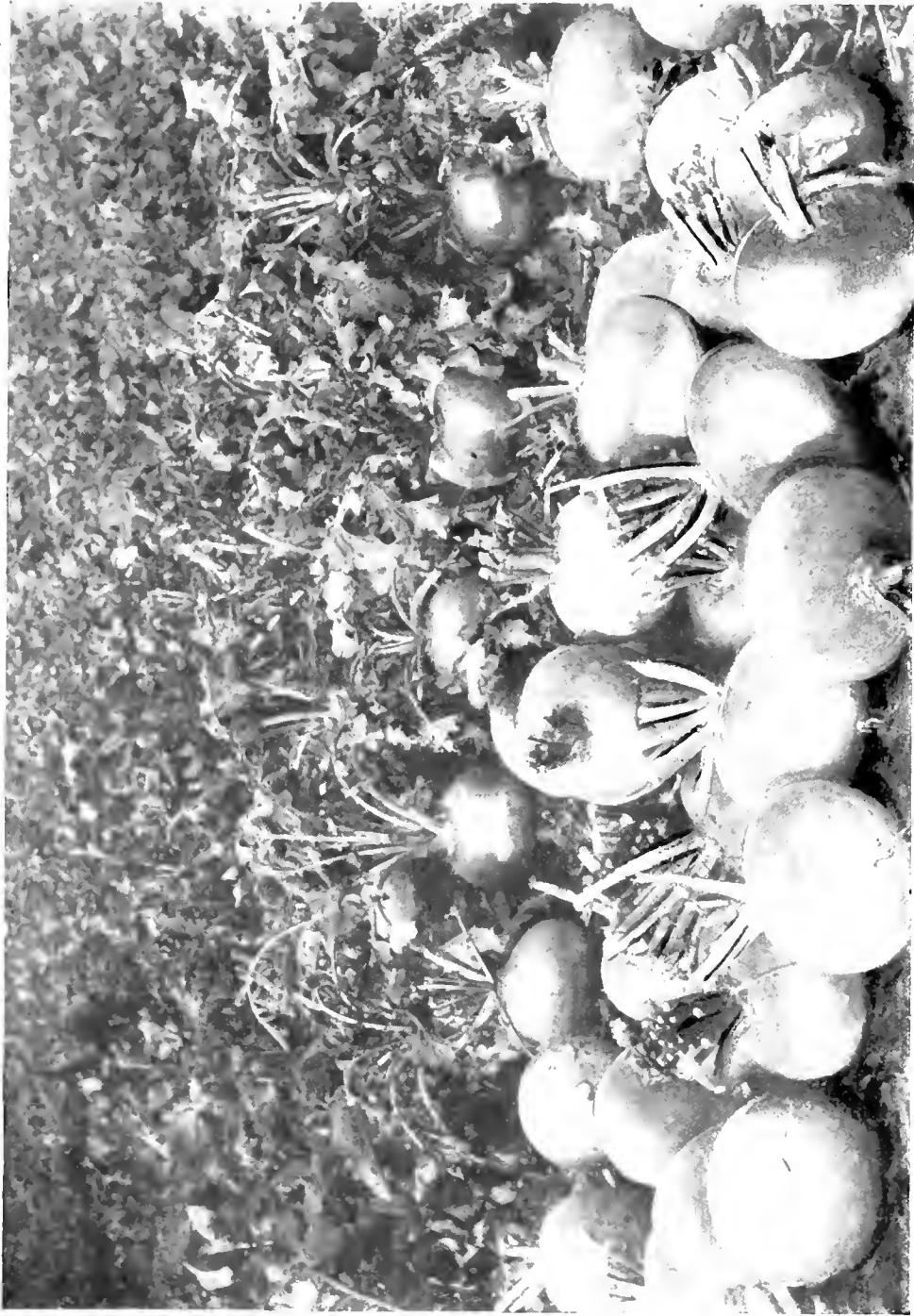
1 lb. 7 lbs. 14 lbs. 28 lbs. Bushel (52 lbs.)  
1/6 9/6 18/6 36/6 70/0

<b>CARTERS HOLBORN KANGAROO SWEDE.</b> —Our ennobled strain, selected under the "Carter" method to ensure maximum quality with maximum quantity (see pages 26 and 27) ... ..	45 0	1 0
<b>Hartley's Green-top Swede.</b> —Largely grown in Yorkshire ... ..	38 0	0 10
<b>Lord Derby Swede.</b> —A choice stock... ..	38 0	0 10
<b>Carters Kangaroo Swede.</b> —A useful stock ... ..	38 0	0 10
<b>Carters Invicta Swede.</b> —A good useful stock... ..	58 0	1 3
<b>Kinaldie Swede</b> ... ..	34 0	0 9
<b>Queen of Swedes.</b> —Large and solid ... ..	34 0	0 9
<b>CARTERS SUGAR SWEDE.</b> —Selected for increased percentage of Sugar ... ..	—	1 6

Not less than half-bushel supplied at bushel rate.

WE ALWAYS SEND THE BEST QUALITY UNLESS OTHERWISE INSTRUCTED.

For particulars of the "CARTER" method of Seed Testing and Root Selection, read pages 5 to 8.



**CARTERS IMPERIAL GREEN GLOBE TURNIP. WHITE-FLESHED.**

**Selected and Tested by the "Carter" Method of Analysis (see page 8).**

**ENNOBLED STRAIN. Price 9d. per lb. ; 34/- per bushel.**



# CARTERS IMPERIAL GREEN GLOBE TURNIP.

## ENNOBLED STRAIN. WHITE FLESHED.

This invaluable winter Turnip is admitted to be the most perfect in every respect of Green Globe Turnips, though it is distinct from and far superior to the original type. Being exceedingly hardy it will, if not sown too early, stand the severity of winter almost as well as a Swede, whilst its value as a food for Sheep and Dairy Cows has become speedily recognised by our customers, who put in several acres every year. One of these who won the **Gloucester County Cup** stated, when writing to us, that the average yield officially recorded by the Judges on a 3-acre field was **36 tons 3 cwt. 1 qr. per acre.**

Since we first introduced this deservedly popular White Fleshed Turnip some years ago, we have devoted our time and attention in the endeavour to increase by means of the Carter Method of Root Selection (see page 8) the total amount of dry matter contained in this root, thus making it of greater feeding value for stock.

This continual re-selection on analytical lines of each year's stock of Imperial Green Globe Turnips has resulted in the production of a root combining the hardiness and quick-growing properties of the Turnip, with the maximum of dry food material, almost equalling in this latter respect the value of a Swede.

### The following Awards have been obtained by Carters Imperial Green Globe Turnip during 1911:—

**First Prize,** Royal South Bucks.  
**First Prize,** Gloucester County.  
**Two First Prizes,** Basingstoke.  
**First Prize,** Winchcombe.  
**First Prize,** Henley.  
**First Prize,** Princes Risborough.  
**Two First Prizes,** Wokingham.  
**First Prize,** Surrey.

**First Prize,** Thame.  
**First Prize,** Cheltenham.  
**First Prize,** Harlow.  
**First Prize,** South Berks.  
**Two First Prizes,** Harewood End.  
**First Prize,** Frome.  
**First Prize,** Barnstaple.  
**First Prize,** Brailsford.

### Besides these important Prizes more than 50 others have been won during the past three years, including:—

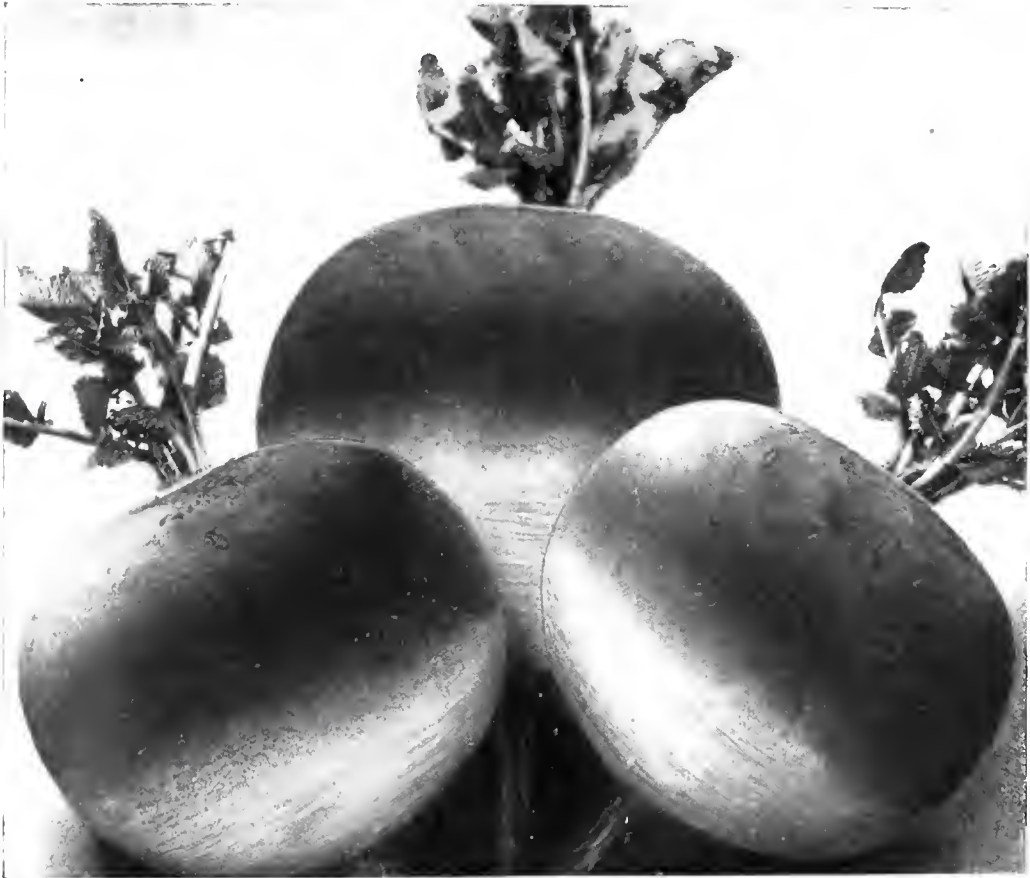
**Eight First Prizes,** Basingstoke.  
**Three First Prizes,** Surrey.  
**Three First Prizes,** Henley.  
**Three First Prizes,** Princes Risborough.  
**Five First Prizes,** Wokingham.  
**Three First Prizes,** Taunton.  
**First Prize,** Dunster.

**Seven First Prizes,** Harewood End.  
**Two First Prizes,** Royal East Berks.  
**Three First Prizes,** Dartmouth.  
**Two First Prizes,** Newton Abbot.  
**First Prize,** West Gloucester.  
**First Prize,** Pitminster.  
**Three First Prizes,** South Berks.

## ENNOBLED STRAIN.

Price **9d.** per lb. : **34/-** per bushel.

# CARTERS FIELD TURNIP SEEDS.



*Photographed and Copyrighted by J. C. & Co.*

**CARTERS PURPLE TOP MAMMOTH.**

## **CARTERS IMPROVED PURPLE-TOP MAMMOTH WHITE-FLESHED.**

We have for many years recommended this greatly improved type of purple-topped Turnip, which, owing to its rapid growth, has now become probably the most generally grown variety for early feed in cultivation. It is especially suited for light or gravelly soils, although its all-round adaptability makes it a useful variety for all classes of soil. It is also very extensively grown in the colonies, and is unquestionably one of the largest and most solid white-fleshed Turnips we have for quick use. The flesh is very firm and juicy.

**Tested and Selected by the "Carter" Method of Analysis** (see page 8).

**Price 10d. per lb. ; 38/- per bushel.**

Not less than one half bushel supplied at the bushel rate.

# CARTERS FIELD TURNIP SEEDS.

## WHITE FLESHED VARIETIES.

Sow 4 lbs. per acre.

	TESTED SEED.	
	Per bushel. s. d.	Per lb. s. d.
<b>CARTERS IMPERIAL GREEN GLOBE.</b> —(See pages 34 and 35.) Our Ennobled Strain. Very distinct from and superior to the ordinary types of Green Globe Turnips. Our stock of this invaluable winter Turnip cannot be surpassed...	34 0	0 9
<b>CARTERS POMERANIAN WHITE GLOBE.</b> —A handsome white-skinned Turnip. One of the most popular for early consumption. Very superior to the old Norfolk White Round, being of better shape and almost without the furrowed neck, which, in assisting water to lodge, cause so many roots to rot ... ..	34 0	0 9
<b>CARTERS IMPROVED PURPLE-TOP MAMMOTH.</b> —(See page 36.) One of the largest and most solid white-fleshed Turnips for quick use ... ..	38 0	0 10
<b>CARTERS DEVONSHIRE GREYSTONE.</b> —A mottled-topped variety, valuable for early use. Much grown in the Southern Counties ... ..	34 0	0 9
<b>CARTERS IMPROVED RED PARAGON.</b> —A popular early variety ... ..	34 0	0 9
<b>Green Globe.</b> —Ordinary ... ..	30 0	0 8
<b>CARTERS RE-SELECTED RED GLOBE.</b> —Grown largely in Lincolnshire ... ..	38 0	0 10
<b>Stratton Hardy Green Round.</b> —A hardy white-fleshed variety for late use ... ..	34 0	0 9
<b>CARTERS SIX WEEKS STONE OR STUBBLE.</b> —Quick growing ... ..	34 0	0 9
<b>White Stone</b> ... ..	34 0	0 9
<b>Green Round</b> ... ..	28 0	0 7

## OTHER TURNIPS WE CAN SUPPLY.

<b>White Globe</b> ... ..	30 0	0 8.
<b>White Tankard</b> ... ..	38 0	0 10
<b>Red Tankard</b> ... ..	38 0	0 10
<b>Green Tankard</b> ... ..	38 0	0 10
<b>Lincolnshire Red Globe</b> ... ..	34 0	0 9

For Yellow Fleshed Varieties, see pages 38 and 39.



# CARTERS FIELD TURNIP SEEDS.

YELLOW FLESH, GREEN TOP.

By making judicious sowings of the following varieties of Hybrid Turnips, it is possible to secure the provision of a supply of roots for the whole year round.

## CARTERS COMMONWEALTH EARLY YELLOW-FLESHED TURNIP.

This is one of our most popular Turnips and is in large demand by leading flockmasters in the North who appreciate the large bulky crop which is produced under favourable conditions, in a short space of a few weeks.

It somewhat resembles the old Green-top Scotch, with an increased rotundity through re-selection, whilst its wrinkled skin gives it a distinct appearance. It is exceedingly nutritious, and as a Turnip for early folding it has few equals.

TESTED AND ENNOBLED SEED—

Price 1/- per lb. ; 45/- per bushel.

## CARTERS CHAMPION GREEN-TOP HYBRID.

Our Ennobled Strain. A very superior strain of the Green-top Scotch or Aberdeen class of Turnip. It is globular in shape, with a single tap root, and the orange coloured flesh is very firm in texture.

As a root for early autumn feed this Hybrid Turnip is extremely valuable, and each year flockmasters are more and more appreciating its many merits.

If not sown too early it will keep nearly as well as a Swede, whilst it is also useful as a late sowing variety.

TESTED AND ENNOBLED SEED—

Price 9d. per lb. ; 34/- per bushel.

## CARTERS LIGHTNING GREEN-TOP HYBRID TURNIP.

This early-maturing yellow-fleshed Turnip is one which is particularly recommended, both on account of its splendid feeding value and for the certainty with which a good crop may be relied upon in all seasons.

It is a fact that a fully-matured Turnip contains more food solids than a slower growing sort, and it is therefore obvious that a quick-growing Turnip with the good qualities of "Carters Lightning Green-top" is especially useful for general cultivation.

TESTED AND ENNOBLED SEED—

Price 10d. per lb. ; 38/- per bushel.

In order to meet the requirements of many of our customers who prefer the older types of Turnips, we have made a careful re-selection of different stocks of popular varieties. (See also pages 37 and 39.)

		Per bushel,	Per lb.
		s. d.	s. d.
<b>Aberdeen, Green-top</b> ... ..		30 0	0 8
<b>Old Meldrum</b> ... ..		34 0	0 9
<b>Drummond's Early Field Yellow.</b> A small quick-growing green-top variety, desirable for early feeding ... ..		34 0	0 9
<b>Robinson's Golden Ball or Orange Yellow.</b> Bright yellow flesh and skin, useful for late sowing ... ..		34 0	0 9
<b>Fosterton Green-top Hybrid.</b> We offer a choice selected stock ... ..		34 0	0 9
<b>Green-top Scotch</b> ... ..		30 0	0 8
<b>Tankard Yellow, or Tankard Swede</b> ... ..		34 0	0 9

# CARTERS FIELD TURNIP SEEDS.

YELLOW FLESH, PURPLE TOP.

The greatest care and attention has been paid to the ennobling of the Carter Strains of Turnip and the varieties here offered will be found to possess the maximum of dry or solid matter wherein lies the value of the root for feeding.

**RAPIDITY OF GROWTH AND EARLY MATURITY** are other important points which have been accentuated in Carters Hybrid Turnips.

Carters Hybrid Turnips were included in the Collection of Roots which won the **CHAMPION PRIZE** at the **LONDON DAIRY SHOW, 1910**, and have been awarded several **FIRST PRIZES** at the leading Root Shows.

## CARTERS FIRST CROP PURPLE-TOP HYBRID.

This Hybrid Turnip is most valuable to growers on account of the rapidity of its growth. If sown early in April, it would be ready for Michaelmas feeding, an important point to remember when the provision of autumn food for the flock is under consideration.

**TESTED AND ENNOBLED SEED—**

Price **10d.** per lb.; **38/-** per bushel.

## CARTERS CHAMPION PURPLE-TOP HYBRID.

A counterpart of the Green-top, but with a purple skin. Ennobled strain.

It is very largely grown in the North, as it is well adapted to growing in bleak, cold districts or where Swedes would fail. Indeed, the extreme hardiness of this type of Turnip is the reason of its being often regarded as the mainstay of the root food given to stock during the winter and spring.

**TESTED AND ENNOBLED SEED—**

Price **9d.** per lb.; **34/-** per bushel.

**NOTE.**—In order to secure a continuous supply of roots for the whole year round, Carters First Crop Purple-top should be sown first, followed by Carters Champion Green-top and Carters Champion Purple-top Hybrids in the order mentioned.

## THE FOLLOWING ARE THREE USEFUL TURNIPS FOR GENERAL USE.

									Per bushel.		Per lb.	
									s.	d.	s.	d.
<b>Aberdeen, Purple-top...</b>	...	...	...	...	...	...	...	...	<b>30</b>	<b>0</b>	<b>0</b>	<b>8</b>
<b>Dale's Hybrid</b>	...	...	...	...	...	...	...	...	<b>34</b>	<b>0</b>	<b>0</b>	<b>9</b>
<b>Purple-top Scotch</b>	...	...	...	...	...	...	...	...	<b>30</b>	<b>0</b>	<b>0</b>	<b>8</b>

**FOR LIST OF WHITE-FLESHED TURNIPS see page 37.**

**Sow 4 lbs. per acre.**

**Not less than half a bushel of one variety charged at the bushel rate.**

## CARTERS KOHL RABI.

---

Each year this crop is becoming more extensively grown as farmers learn to appreciate the value of the profitable root.

A few years ago Kohl Rabi was only to be seen on a few sheep farms, whilst the works of agricultural writers contained but a brief reference to the cultivation of the crop.

Now it takes its place amongst the other important root crops of the farm, and shares the honours of the Shows with the more popular mangel or swede.

Kohl Rabi is a plant of the same order as the turnip, *but differing from it* in showing the effects of cultivation in the enlargement or swelling of the foot-stalks of the leaves, instead of the root.

Taking it in the order of seed-sowing, Kohl Rabi should have preceded mangel; but it is more convenient, in our opinion, for this occasion, to let it follow the other cruciferous root crops, with which it is so closely identified.

The special advantages of this plant are its immunity from insect attacks, the great extent to which it resists frost, its habit of carrying all the edible portion well above ground—thus rendering it a most valuable plant for feeding off sheep without waste, or the labour of hacking up the last part of the bulb—its remarkable power of standing drought, and its freedom from mildew. It may also be sown earlier than the turnip and in stiffer soil, and will stand transplanting better than any of the root crops, which renders it valuable for filling up blanks. Formerly, when the seed was dear and labour cheap, this method used to be adopted, but now this state of things is reversed, and drilling is universally resorted to.

In addition to the main crop, however, it is advisable to have a bed of young plants in readiness for filling up blanks, and planting out where another crop may have failed.

The time for drilling the seed is during March, at the rate of four pounds per acre, and the cultivation is similar to that of the turnip. The distance for singling is from twelve to sixteen inches, the globe-shaped varieties requiring more than the oval.

The early seed time enables the plant to get well advanced before the “fly” appears, and so to escape its attack.

We have always advised a more extended cultivation of Kohl Rabi, especially as a crop for ewes and lambs, and foreseeing its increasing value, we have spared no pains to improve both the cropping and feeding qualities of the best sorts. During the last few years we have applied our **method of ennobling** the seed as employed in the case of our swede turnips, kale, &c., to the two leading varieties, which we offer under the names **Carters Model** and **Carters Imperial Green Kohl Rabi**.





The drought-resisting properties of Kohl Rabi were fully proved during the abnormally dry summer of last year when in a large number of cases Swedes and Turnips were a complete failure, whilst the Kohl Rabi produced a heavy crop. The testimonial we print below supplies an interesting proof of this fact.

"I am very pleased to tell you my experience of Kohl Rabi. I grew two acres, which I penned off in November and December, the sheep gnawing the roots as they stood. They lasted 70 sheep nine weeks. I find also that Rabi is able to withstand drought and is very easily transplanted."—W. G. HUMPHREYS, Esq., Princes Risborough.

## **CARTERS MODEL.**

This is we consider the finest green-top variety and is more and more largely grown by leading flock masters. It matures early and the root is large with a moderately small top.

Tested and Ennobled Seed. Price **2/9** per lb.

## **CARTERS IMPERIAL GREEN.**

This is a variety with a larger top and root which grows well out of the ground, and is on this account sometimes preferred for cold soils. It is extremely hardy and makes a good succession to Carters "Model."

Tested and Ennobled Seed. Price **2/6** per lb.

Drill at the rate of 4 lbs. per acre.

# CARTERS CATTLE CARROT.



*Photographed and Copyrighted by J. C. & Co.*

## CARTERS ORANGE GIANT.

**Carters Orange Giant is the best form of Orange or Yellow Cattle Carrot we know of, and we have tested every other variety in commerce side by side with it in our Trial Grounds.**

**The Roots grow to an enormous size, are of excellent quality, clean shaped, and possess very high feeding properties.**

"Our crop of Orange Giant Carrot averages 40 tons per acre. I find them a good sound root. This is the first time I have grown them and I am very pleased."—Mr. T. WARRE, Bailiff to the Hon. T. A. BRASSEY.

**Tested Seed—Price, 6/- per lb.**

## CARTERS KANGAROO.

**A large red variety. Heavy yielder on all Carrot soils. One of the best.**

**Tested Seed—Price 6/- per lb.**

## OTHER SELECT VARIETIES.

**Carters Green-Top Orange or Yellow Belgian.**—A heavy cropper.

Tested Seed—per lb. 5/-

**Yellow Intermediate.**—Very superior

Tested Seed—per lb. 6/-

**Large Red Cattle** ... .. per lb. 5 -

**Carters Improved Red Altringham.**

—The best red for good soils.

Tested Seed—per lb. 6/-

**Red Altringham.** Ordinary—per lb. 5/-

**Improved Red Intermediate.**—

For shallow soils. Tested Seed—per lb. 6/-

**Red Intermediate.**—Ordinary stock, per lb. 5/-

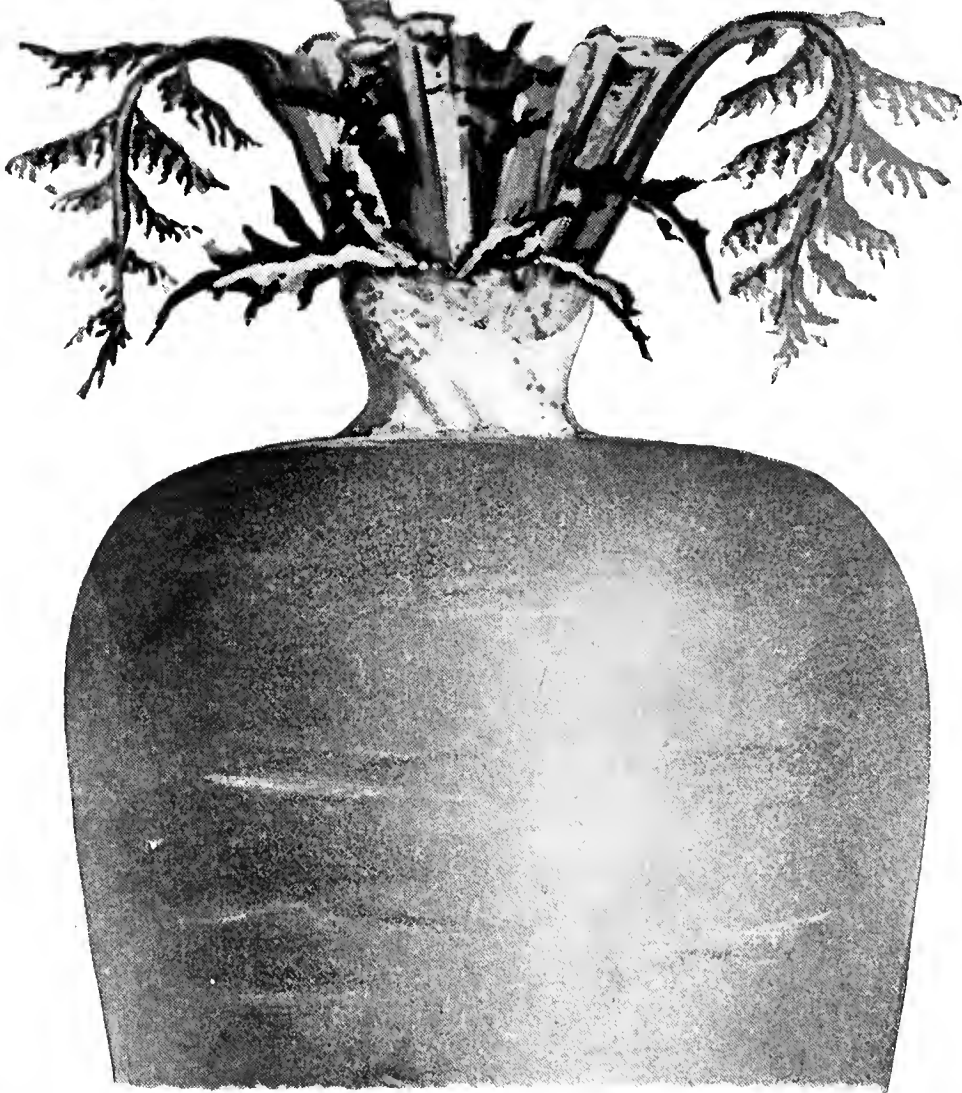
**Carters Carrot Seed is without the beard, and can be sown in an ordinary drill.**

**Sow 8 lbs. per acre.**

*Carters* RAYNES PARK, LONDON, S.W.—1912.



# CARTERS CATTLE CARROT.



**CARTERS 100-TON WHITE-FLESHED FIELD CARROT.**—A short bulky growing white-fleshed Carrot, with a small top that requires little trouble in cultivating and harvesting.

A PRODIGIOUS CROPPER.—“I have a splendid crop of White Carrots from your Seeds. My neighbours say they never saw such a fine lot.”—E. B.

Tested Seed—Price 6/- per lb.

**CARTERS GIANT WILTSHIRE WHITE CARROT.**—This large variety has become exceedingly popular, and our stock is now as perfect as it is possible to make it. It is a great producer of highly nutritious roots that come away very clean from the land, and are a remunerative crop.

“You will be glad to hear that your Carrots, as grown here, have been making £2 per ton. The Giant Wiltshire White turned out splendidly.”—R. F. H. W.

Tested Seeds—Price 6/- per lb.

**CARTERS IMPROVED WHITE BELGIAN.**—Tested Seeds, per lb. 6/-.

**White Belgian.**—Ordinary, per lb. 5/-.

Carters Carrot Seed is without the beard and can be sown in an ordinary drill. Sow 8 lbs. per acre.





## **THOUSAND-HEADED KALE.**

**CARTERS ENNOBLED STOCK.**

### **A VALUABLE FOOD FOR SHEEP AND LAMBS.**

We have for many years advocated the great claims that this hardy plant has upon sheep farmers. The simplicity and consequent economy of its culture and the enormous crops it produces, with its valuable feeding properties during dried-up seasons, should ensure a large breadth upon every flockmaster's estate.

The observations we have made with our experimental tests of Thousand-Headed Kale, have satisfied us that by rigorous selection of the seeds, when passing through the final stages of maturity under the "Carter" method, a reinforcement of strength is carried forward to the next crop, which gives a vigorous growth not obtainable by other means. The Seed we now offer has been selected and ennobled under this process, and will be found to possess enormous cropping properties.

Thousand-Headed Kale drilled in March, April, and May will be ready in October, November, and December, and that drilled in August and September will come in from March to June.

### **CARTERS ENNOBLED THOUSAND-HEADED KALE,**

Price **1/3** per lb.

Thousand-Headed Kale, as commonly supplied, 1/- per lb.

**Drill 6 lbs. per acre. Sow 2 lbs. per acre for transplanting.**

# AUTUMN AND CATCH CROPS.

Owing to the abnormal drought experienced last summer, there was in most parts of the country a scarcity of fodder crops available for winter and spring feeding.

As a dry summer always entails a scarcity like this, it behoves stock-keepers to secure a provision of fodder by making judicious sowings of quick-growing crops every summer and late autumn as well as earlier in the year.

The best crops for this purpose are Rape, Mustard, Tares, and Trifolium, and these may be sown immediately the stubbles are broken up.

## RAPE OR COLE.

It is difficult to understand why this crop is not being more extensively grown, for it is one of the quickest and most profitable of our green crops, being easily grown, and its growth is rapid, whilst the ground can be quickly cleared when needed for other crops, which fact makes it a valuable catch or fallow crop.

It is readily adapted for all classes of lands, except poor thin soils and burning gravels, and two varieties are commonly cultivated, the dwarf and giant. The former is rather more suitable for chalk soils, upon which it is frequently grown after a catch crop, but the giant variety thrives more readily on strong or fen lands, where it is taken as a main crop in the rotation.

Rape is especially valuable for providing green food for lambs in the early months of the year when soft, succulent fodder is often scarce, and all stock fatten on it.

The seed is sown in March at the rate of 6 lbs. per acre, in rows 2 feet apart, when it will be ready for feeding off in July, or successional sowings may be made from May to August, though the main portion of the crop should be sown about June.

It can be sown broadcast, or the seed may be mixed with early turnips, this crop making a fattening feed for sheep in the autumn and spring, but the heaviest crops are produced by drilling the seed. This is especially necessary for the giant and broad-leaved variety, which yields an immense crop, suitable for stall-fed stock. The stalks of this variety are sometimes allowed to remain in the ground, when a quantity of green shoots are produced, invaluable for spring feeding.

A very useful catch crop is obtained by sowing 5 lbs. of Rape mixed with 1 lb. of quick-growing turnip seed, such as Carters Imperial Green Globe or Carters Purple Top, both of which are specially recommended for autumn sowing.

**Broad-leaf variety, Carters Ennobled Stock, price 16/- per bushel.**

**Broad-leaf Essex Rape, price 14/- per bushel.**

## WHITE MUSTARD. FINE SELECTED STOCK.

One of the quickest growing green crops we have, and exceedingly useful as a means of producing sheep keep in times of scarcity, or when Turnips have failed through drought. Sow 20 lbs. per acre broadcast upon a shallow furrow, harrow in and roll. Under ordinary conditions the crop should be ready in six weeks. Again, it may be sown broadcast over Rape or early Turnips when such are required for feeding young during the autumn.

**Price 16/- and 14/- per bushel.**

## TARES OR VETCHES.

Tares do not require a very deep tillage, and may be grown upon a wide range of soils, but give the best return upon the stronger class of loams. They are very nutritious, and suitable for all kinds of stock. May be siloed, made into hay, or fed to sheep in racks on the land where grown.

It is a good plan to sow a little Rye or Oats with Tares, as it helps them to stand up during heavy rains or windy weather. Drill or broadcast 3 bushels per acre.

**Spring Tares 8/- per bushel. Winter Tares, price on application.**

**Special mixtures of the above seeds can be supplied for sowing where an economical green crop is required for summer or spring feeding.**



# CARTERS MONSTER DRUMHEAD





# CATTLE CABBAGE

AD



## CARTERS MONSTER DRUMHEAD CATTLE CABBAGE.

*See picture on previous page.*

A large Cabbage of the Drumhead type, and produces an enormous bulk of solid food of very superior feeding properties. If sown in March and April it will come into use during the following winter. If sown in August it may be used the following summer.

**Tested Seed—Price 3s. 6d. per pound.**

## CARTERS MARBLEHEAD DRUMHEAD CABBAGE.

**A giant variety invaluable for stock-feeding.**

Seed sown in spring is ready for cutting in autumn and early winter. Seed sown near end of summer is ready the following summer.

**Tested Seed—Price 3s. 6d. per pound.**

## CARTERS MAMMOTH BEEFHEART.

One of the best main-crop Cabbages; very large firm heads of fine flavour, very few outside leaves, and does not readily run. Invaluable for early winter feeding.

**Tested Seed—Price 4s. 6d. per pound.**

## CARTERS IMPROVED EARLY OXHEART.

A pointed Cabbage, growing to a good size, with remarkably firm and solid heart. Drilled or planted about 20 inches apart in the row, and 24 inches apart from row to row, an extraordinary crop can be produced in a few months.

**Tested Seed—Price 4s. per pound.**

## CARTERS IMPROVED EARLY DRUMHEAD.

There is no Cattle Cabbage more necessary to the Dairy Farmer or Flockmaster than this variety. Sown at the usual time in March it will produce a valuable and heavy crop of feed in the autumn months of the same year, whereas the ordinary Drumhead sown at the same period would be only half-grown.

**Tested Seed—Price 4s. per pound.**

## CARTERS RED SHEEPFOLD.

The Red Cabbage is being extensively grown for summer sheep feed, inasmuch as this variety stands longer upon the land without bursting than many of the Green Cabbages, whilst its feeding properties leave nothing to be desired.

**Tested Seed—Price 4s. per pound.**

										Per lb.—s.	d.
<b>Robinson's Drumhead</b> ...	...	...	...	...	...	...	...	...	...	<b>3</b>	<b>0</b>
<b>Carters Selected Enfield Market</b> ...	...	...	...	...	...	...	...	...	...	<b>3</b>	<b>6</b>
<b>Oxheart Sheepfold.</b> A good Green Cabbage...	...	...	...	...	...	...	...	...	...	<b>3</b>	<b>6</b>
<b>Purple Flat Poll</b> ...	...	...	...	...	...	...	...	...	...	<b>6</b>	<b>0</b>
<b>Drumhead Savoy</b> ...	...	...	...	...	...	...	...	...	...	<b>3</b>	<b>0</b>
<b>Carters Thousand-headed Kale</b> (see page 44).											

**Drill 5 to 6 lbs. per acre. For transplanting, sow 2 lbs. per acre.**

## HINTS ON THE CULTIVATION OF THE CABBAGE AS A FIELD CROP.

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There are few plants which exhibit so great a tendency to vary in form through cultivation as those of the genus *Brassica*. Take, for example, the following estimable culinary vegetables—Scotch Kale or Curled Greens, Colewort, Savoy, Kohl Rabi, Cauliflower, Broccoli, Brussel Sprouts, &c.—and observe the variety in form and quality; or contrast the solid-headed Drumhead with the Tree Cabbage of Jersey, the latter attaining a height of six to ten feet.

The Cabbage is especially useful in autumn before Turnips come in, and again in spring when Turnips are all consumed. Stock of all kinds thrive well upon them. The crop will do well on almost any soil, the heaviest returns of Cabbage acreages being obtained from the stronger loams and alluvial deposits.

Where Cabbages are grown on a large scale, they may be drilled and thinned out the same as Turnips. On a small scale, where the work can be properly superintended, or on very stiff land, where it has not been possible to get a sufficiently good tilth, transplanting should be adopted.

The plants are often carelessly pulled from the seed-bed, and thus receive a check which is aggravated at planting time by thrusting them into a hole without any regard to the disposition and requirements of the delicate rootlets. Again, moist weather is essential to successful planting, and, while waiting for this, the season often becomes too far advanced for a full crop. The additional labour which transplanting also involves must not be overlooked.

The first seed-bed may be made in February, and for this purpose the soil need not be very deep, but should be in good condition and fine tilth. About a pound of seed will be required for every five or six perches, which should be well raked in and rolled. A good dressing of soot will be found useful in keeping off slugs.

Another seed-bed may be made, and the main crop drilled in March, at the rate of four to six pounds per acre. Cabbage seed should also be sown in July and August, by which means a good succession will be secured. To have Cabbages from September to December, Carters Early Drumhead and Carters Improved Oxheart should be drilled during March, April, and May, August and September, there will be a supply from November to January, and from late spring to the summer.

The land for Cabbages should be well and deeply prepared by autumn cultivation. In spring it should be ridged, twenty or thirty loads of farm yard manure spread, four to six cwt. of Special Cabbage Manure sown over it, and the ridges split back, the crop being drilled or planted on the ridges. Or the farm yard manure may be covered by the ridges, and the artificial manure mixed with an equal bulk of peat ash and drilled *with* the seed. Another good plan is to ridge the land in autumn, spread the dung in the furrows, split back the ridges, and let it lie thus for the winter. In the spring, horse-hoe and harrow the ridges and drill them up afresh, the distance between the ridges being from twenty inches to three feet, according to the fertility of the soil and the variety.

There is no doubt that the Cabbage should be more extensively grown as a farm crop than has hitherto been the case. The reasons for its comparatively limited cultivation probably lie in the fact that it has been described as expensive to grow and exhausting to the land. But where the matter has been intelligently investigated, it has been found that, value for value, the Cabbage is not more exhausting than the Turnip, which is so widely grown. Surely, then, the Cabbage is the kind of plant the farmer should desire. Indeed, the circumstance that farmers are growing the crop more extensively is sufficiently proved by the fact that the extent of Cabbage in Great Britain advanced from 60,341 acres in 1901 to 65,179 acres in 1911.





A FINE CROP OF CARTERS FIELD POTATOES.

## CARTERS SELECTED SEED POTATOES. FOR FIELD PLANTING AND EXPORT.

We grow each year a quantity of all the leading varieties of Potatoes suitable for field cultivation both at home and abroad, including—

**Early Puritan**  
**British Queen**

**Up to date**  
**Royal Kidney**

**Factor**  
**Scottish Triumph, &c.**

and **Carters Longkeeper**, a splendid main crop variety suited to all soils.

Our stocks are especially grown for seed purposes on various soils in Scotland and the South and East of England, and we can supply any quantity of seed tubers true to description. The greatest care is taken in order to secure the seed tubers as free from disease as science will allow. Should we find that stocks are in any way diseased the whole consignment is rejected. A special department is devoted to the export of Seed Potatoes to all parts of the world, large quantities being sent annually to Africa, Australia, Canada, New Zealand, India, North and South America, and to other places as far away as the Falkland Islands.

Tubers are packed in a special manner which ensures their vitality being unimpaired upon arrival at their destination from a long voyage.

We have despatched several large consignments to South Africa, with this result:—

Riversmead Farm, Norvals Point, South Africa.

"It may please you to know that the consignment of Seed Potatoes reached us in a really magnificent condition, due to the exceedingly careful packing."—A.H., 1910.

# SUGAR BEET.

The cultivation of Sugar Beet in this country for the purpose of the manufacture of sugar has received so much attention that it has now become a question of national importance, but there is still hesitation on the part of some farmers to enter into the cultivation of this crop, arising from the want of familiarity with the subject ; but when the facts of the whole case become known, we are inclined to think that farmers will enter into the question freely, and be disposed to undertake to grow the roots necessary for the manufacturer.

## CULTIVATION.

The soil best suited for the cultivation of Sugar Beet is from a medium to a heavy loam. In light, sandy soils the percentage of the sugar content may be higher in some cases, but the weight per acre is not so great. The land should be ploughed in the autumn at least from ten to twelve inches deep, turning in a good coating of stable manure. The seed should be sown from early April to the middle of May, according to the season and the preparation of the land. 16 lbs. per acre is considered sufficient, although some of the best growers sow as much as 20 lbs. Before sowing, the surface should be broken up into a good tilth with a surface dressing of 2½ cwt. of Nitrate of Soda per acre, and 3 cwt. of Superphosphate. The seed is drilled on the flat in rows 15 inches apart, and the plants thinned out 10 inches in the row ; an average of 16 to 25 tons per acre is often produced by experienced growers, although large crops up to 40 tons per acre have been known.

## VARIETIES OF SUGAR BEET.

Having for several years made careful experiments as to the most suitable variety of Sugar Beet for cultivation in this country, besides being in close touch with the best growers of Sugar Beet for this purpose on the Continent, we have already conducted a considerable business in the production of Sugar Beet seed of the highest sugar-producing quality for many houses outside England.

We are therefore in a position from our experience in the matter to meet the requirements of those farmers who wish to purchase seed of the best possible varieties for cultivation in this country.

The varieties below are those most commonly grown by Expert growers.

**Carters No. 1**, saved from mother roots selected under a guaranteed analysis, and giving 20 per cent. of sugar and upwards. We recommend this as the most advantageous, both to the grower and to the manufacturer.

**1/6 per lb. Price per cwt. on application.**

We can also supply such well-known Continental varieties as

**Improved White Sugar Beet, 1/3 lb.**

**Green Top Sugar Beet, 1/3 lb.**

**Red Top Sugar Beet, 1/3 lb.**

**Klein Wanzleben, 1/3 lb.**

## SPECIAL QUOTATIONS FOR QUANTITIES.

# AGRICULTURAL FORAGE PLANTS,

## USEFUL FOR

### Stock Feeding, Ensilage, Ploughing-in, and other purposes.

The selection and cultivation of economical crops suitable for growing on poor land where grain or roots cannot always be profitably grown has often been a source of anxious thought for the agriculturist, especially when such land is intended to produce a supply of green or dry fodder for stock. It is therefore with a view to providing a few particulars of the lesser known crops which may be utilised for this purpose that the following notes are given, though James Carter & Co. are at all times pleased to give fuller information concerning them.

**BEAN** (*Faba vulgaris*).—A useful crop on strong deep soils. Sow from 3 to 4 bushels per acre, according to the custom of the locality, in drills, if raised, about 24 inches apart; if on the flat, about 18 inches apart. Winter Beans are generally sown from October to November; Spring Beans in February.

Selected Tick Bean,	Heligoland Bean,	} Prices on application.
Early Mazagan Bean,	Winter Bean,	

**BROOM** (*Cytisus scoparius*).—A useful plant in the formation of coverts, or for furnishing the outer edges of plantations or hilly drives. The seed, which is of somewhat slow germination, may be sown at the rate of 20 to 40 lbs. per acre, or sown in a bed and the young stuff transplanted.

Price 1s. per lb.

**BUCKWHEAT** (*Polygonum fagopyrum*).—This is seldom grown for feeding cattle, though it is exceedingly suitable as a food for game or poultry, and it is cultivated in the Eastern Counties for this purpose. It has nevertheless been recommended as being suitable for feeding horses, cattle, and pigs, and besides this the simplicity of its cultivation, combined with its rapid growth on the poorest soils, renders it an ideal crop for green manuring. Two bushels of seed are sown to the acre from the middle of May until June, in drills 18 to 24 inches apart. The crop is mown about the end of August, when the lower seeds are ripe, and after turning five or six times it may be stacked until threshed. Sheep may also be folded on the crop when the ground is covered, but it is inadvisable to do this when the haulm is very wet.

Price 7s. per bushel.

**BURNET** (*Sanguisorba officinalis*).—This plant has been cultivated for over a hundred years, but generally it has been used for sowing in mixtures of grass and clover seeds, and it is only comparatively recently that its value as a crop for sowing on poor, sandy, or thin chalk soils has been appreciated. It has sometimes been grown as a substitute for clover on clover-sick lands, and is used for sheep feed, whilst the straw is also useful for fodder. The seed may be drilled or broadcasted in April in the same way as sanfoin, or it can be put down with a corn crop, about 30 to 40 lbs. of seed per acre being required, and the crop will be ready for cutting or folding towards the end of June or early in July. The aftermath may be left for seeding or retained over winter in order to yield a bite early in the following spring.

Price 1s. per lb.; 105s. per cwt.

**CHICORY** (*Cichorium intybus*).—This is a hardy and exceedingly nutritious forage plant and sheep food that will thrive on almost any soil, though it is more often cultivated for its roots. It has been stated by some writers that during the early summer months chicory will feed more sheep to the acre than any other crops, especially on poor sandy soils. It also thrives on peat soils as well as on rich warplands, and as the plants yield several cuttings each year and will last for six or eight years, it would be profitable to have an acre or two wherever a plentiful supply of green food is required. Its cultivation for forage purposes consists of deeply ploughing a well-manured soil early in spring, and drilling 12 lbs. of seed per acre during March, allowing 9 inches between the drills. When the plants are about 4 inches high, they must be hoed in the same manner as turnips, leaving the plants 6 inches apart. If required for folding, the sheep should be turned on before the plant grows too tall, as the stalks then become somewhat tough; if necessary the crop may be cut for stall-fed cattle, doing this just before the plant comes into flower.

Price 1s. 4d. per lb.

**FURZE or GORSE** (*Ulex Europæus*).—Extensively cultivated as a green forage crop, and particularly valuable for sowing where the natural position of the land renders frequent cultivation difficult or expensive. Sow in drills in March, 36 to 45 lbs. per acre, in drills a foot apart.

Price 4s. 6d. per lb. Supply very limited.

**HELIANTHI** (*Helianthus lottiflorus*).—A tuberous forage plant sometimes grown on the Continent in warm climates. Introduced into this country and tried by James Carter & Co. about 1886, since when it has occasionally been recommended for silaging or making into hay. The crop is raised from tubers planted in April, and the cultivation is similar to that of the potato.

Price on application.

**HEMP** (*Cannabis sativa*).—This plant is an annual, and is grown for its fibre and seeds. The land should be clean and well treated, fairly moist and well drained. From the end of April to early May is the best time for sowing the seed. Three to four pecks is the quantity required for an acre drilled in rows about 2 feet apart, not too deep in the ground.

Price 7s. 6d. per bushel.

**KIDNEY VETCH** (*Anthyllis vulneraria*).—A native plant, popularly known as the Yellow Sand Clover, and specially adapted for producing a useful bite for sheep upon poor, thin sands and chalky soils. It stands drought well; all stock like it; grows good crops of hay; yields 2 to 4 tons per acre. Sow 25 lbs. per acre in rows a foot apart.

Price 1s. 2d. per lb.; 125s. per cwt.



**LINSEED or FLAX** (*Linum usitatissimum*).—An annual, largely cultivated in Ireland for its fibre, produced from the dried stems; it is also grown in some parts of England for seed purposes. Thrives on rich fertile land in good tilth, and may be put down with or without a corn crop in April at the rate of  $1\frac{1}{2}$  to 2 bushels per acre, or alone in drills 9 inches apart. True Riga Flax, price 15s. per bushel.

**LUPINS** (*Lupinus species*).—There are two varieties of this plant grown as field crops; the Blue Lupin, mostly grown for the production of seed, and the Yellow variety, which is more generally grown for fodder and green manuring. It is this latter variety which has been used with great success in Germany for rendering poor sandy soils more fertile by ploughing in the crop, thus restoring to the surface of the soil the alkaline constituents obtained by its deep roots from the sub-soil where they are unavailable for more shallow rooted crops; for this purpose it is recommended by our own Board of Agriculture as a profitable crop on any poor, sandy soils which it is desired to improve, though deep, light loams or sandy gravels suit lupins best. The seed is drilled in rows 9 to 15 inches apart on deeply ploughed and scarified land in the end of May, and  $1\frac{1}{2}$  to 2 bushels of seed per acre are required. The forage, of which an abundant quantity is produced, is ready for folding or mowing early in autumn, allowing a second growth to be made which can be ploughed in at the end of the year. It is more adapted for feeding sheep than horses or horned cattle, as these appear to dislike the rather bitter alkaloid taste which the stalks sometimes possess.

Price on application.

**MAIZE** (*Zea Mays*).—Although this crop cannot by any means be called uncommon, yet, owing to the infrequency of its cultivation, it deserves to be mentioned here, as it might be more often grown for fodder in the warmer parts of this country by reason of its extremely simple cultivation and large returns. Maize has been proved to be a valuable milk-increasing food, whilst it also makes a splendid crop for folding sheep. Within recent years some flock masters have practised the sowing of maize and rape together, the procedure being to drill in 2 bushels of the White Horse Tooth Maize about the last week in May, allowing 12 to 16 inches between the drills. After rolling lightly the rape is then broadcasted and lightly harrowed in, using 2 to 3 lbs. of rape per acre. Improved Early Horse Tooth, price 10s. 6d. per bushel.

**PARSNIP** (*Pastinaca sativa*).—A highly nutritious and remunerative root crop on rich deep soil, and very popular for stock feeding in some parts of the country. Sow 6 to 8 lbs. per acre during March, in rows, about 16 inches apart, the plants to be ultimately singled out to 8 inches in the rows, and lift the roots as required during winter; they keep best if covered with litter during severe frost. The most popular cattle feeding varieties are the following:—

Large Cattle, price 1s. 6d. per lb. Large Jersey or Guernsey, price 1s. 6d. per lb.

**PRICKLY COMFREY** (*Symphytum asperum*).—The cultivation of this crop has been undeservedly neglected during latter years, though there is no reason why this is so, as the crop is an economical one to grow, and when once established will continue to produce an abundance of nutritious fodder for several years which is freely eaten by all kinds of stock. Several stock owners still prefer Comfrey for fattening stock and dairy herds, as it greatly increases the milk supply, and it is often to be seen growing in Cumberland and other Northern Counties for this purpose. Besides this it is of special utility for making into silage, and its value in this direction cannot be overrated. It requires a deeply worked and well-manured soil, and is planted in sets early in spring, 3 feet apart being the usual distance, though on a poor land closer planting is necessary. The crop may be folded when it is grown about 18 to 24 inches high, or may be left to grow taller if required for ensilage.

Strong Grown Sets, price per 100, 6s.; per 1,000, 45s.

**RYE** (*Secale sativum*).—See page 84.

**RIB GRASS** (*Plantago lanceolata*).—This plant is only of service upon poor, light lands that will not carry a better crop. It yields an early and succulent herbage, providing a wholesome fodder for sheep, and, as it will thrive under almost any conditions, it might be sown on almost any waste land whereon sheep can be folded. The seed is broadcasted and harrowed in during early spring, 16 lbs. being the usual quantity sown to the acre.

Price 4d. per lb.; 35s. per cwt.

**SERRADELLA** (*Ornithopus sativus*).—This annual plant is commonly recognised on the Continent as a useful one for growing upon dry, sandy soils, but it has several advantages which would justify its cultivation in the warmer parts of this country. It is equally suitable for green fodder, making into hay, or for green manuring, and as it usually makes a more rapid growth than trefoil, and has a higher feeding value, it may be planted as a substitute for this latter crop, the manner of cultivation being in both cases the same.

Price 1s. per lb.

**SORGHUM SACCHARATUM**.—This is a strong growing succulent plant somewhat resembling maize. It is exceedingly useful in hot and dry summers, and does well on almost any soil. It contains a large proportion of sugar, which renders it a valuable food for dairy cows and horses, and possesses a higher feeding value than maize. The seed is either drilled or broadcasted in May, 16 lbs. of seed per acre being necessary for the former method and 24 lbs. for the latter.

Price 8d. per lb.

**SHEEP'S PARSLEY** (*Petroselinum sativum*).—So called because sheep are especially fond of it; it thrives well upon uplands and downs, or under conditions generally favourable to sheep. Sow 8 lbs. per acre alone, or mixed with grass seeds about 1 lb. per acre.

Price 1s. 6d. per lb.

**SUNFLOWER** (*Helianthus annuus*).—Grown for feeding Bees, Game, and Poultry, and also for its oil yielding properties. We offer a giant variety.

Price 1s. per lb.

**TARES OR VETCHES** (*Vicia sativa*).—See page 45.

Spring Tares. Winter Tares. Price on application.

**YARROW** (*Achillea Millefolium*).—This plant is more often sown in a mixture of pasture grasses than alone, but owing to its adaptability for growing on the poorest and driest soils it can be recommended for sowing on disused sand pits, rabbit warrens, and other waste lands which cannot grow better herbage. The seed is sown broadcast at the rate of 5 to 6 lbs. per acre in April or end of August.

Price on application.

Full particulars and prices of any Agricultural Seeds used at home or abroad will be sent on application.

*Carters* RAYNES PARK, LONDON, S.W.—1912.

# PERMANENT PASTURE. "CARTER" SYSTEM OF TURF PRODUCTION.

## FOR MEADOWS, GOLF COURSES, LAWNS, &c.

There is no agricultural operation which requires greater foresight and judgment on the part of the agriculturist than that of making provision for an ample supply of Hay and Pasturage for his stock, and in no branch of the Farmer's business can the Seed Merchant so readily assist him in securing the most profitable results when sowing leys, meadows, temporary or permanent pastures, &c.

We have for many years past realised the importance of a combination of the botanical and scientific knowledge of the thinking Seed Merchant with the practical skill of the Agriculturist, and we have from time to time introduced a series of "systems" or "methods" in order to put this combination of knowledge into practical operation.

These "methods" have now become inseparably associated with our name, the **Carter Method of Seed Testing, Carter Method of Root Selection,** and the **Carter Method of Ennobling Seeds** being too well known to need a detailed description. But though we have an extensive business in grass seeds the **Carter System of Turf Production** is not so generally known, though it has, nevertheless, been steadily pursued for many years with such successful results that our reputation as Grass Experts is unassailable.

In all branches of turf production—which includes the formation of leys, pasture, and the by no means inconsiderable acreage of golf course, football, cricket, and other sports ground—our system has been introduced, and the following notes are intended to give a brief *résumé* of our Method. The **Carter System of Turf Production** has for its primary object the securing of the best turf or heaviest hay crop from grass seeds adapted to the soil at the least possible expense.

This Method of ours has for its object the production of a strong, quick-growing, permanent, or temporary turf, as required, turf from seed in the shortest space of time, and to secure the best results we pay the greatest care to three essential points, viz. :—

1. **The Selection of Suitable Varieties.**
2. **Purity of Seed.**
3. **Strong Germination.**

1. The selection of suitable grasses necessitates careful consideration of the soil, its geological formation and physical character, and for this purpose we may incidentally mention that we have in our office samples of soils of over 400 different districts, representing all classes of soils. An equally important point to bear in mind in the selection and prescribing of grass mixtures is the purpose for which the turf should be intended. For instance, turf required for the up-land sheep farm necessitates different seeding to that of

## PERMANENT PASTURE. "CARTER" SYSTEM OF TURF PRODUCTION.

the inland stud farm or sea-side golf course. Some agriculturists dislike Cocksfoot in their meadows or pastures, therefore we supply prescriptions excluding this grass; in fact, there is no purpose for which turf could be required that we cannot prescribe a suitable mixture.

2. The second point, though by no means of secondary importance, is the Purity of Seed, and all agriculturists are aware that the most extravagant form of farming is to sow cheap, unclean seeds. Besides being a personal loss to the sower, it entails expense and annoyance to neighbouring farmers, and, in fact, the spread of weeds has proved so fraught with injurious consequences that the Board of Agriculture and other authorities have seen fit to issue special instructions in the matter. Realising the danger of weeds in all kinds of seeds, we have always spared no expense in obtaining the most up-to-date machinery, the greater part of which is of our own invention.

We direct our readers' notice to pages 5 and 72, which fully deal with the danger of unclean seeds.

3. To secure strong Germination all our grass and other seeds have to undergo several rigorous tests with our own patent germinating apparatus before being finally offered for sale. For this purpose a special laboratory has been erected, which is under the charge of a certified analytical botanist, who we recently commissioned to inspect a number of the leading Government and private seed testing stations abroad. The result of this visit is that we now possess additional appliances, which have been selected after much thought, as the most up-to-date that the Continent or America produces, for we have always been determined that our **Tested Seeds** shall be fully tested before being sent out, and that the most perfect apparatus shall be used to help us in securing our objective, regardless of labour and expense.

The following is a list of the Grasses, Clovers, and other plants from which we select for the many and varied purposes for which customers require a mixture:—

<i>Agrostis stolonifera</i> (Fiorin).	<i>Lolium perenne</i> (Perennial Rye Grass).
<i>Anthoxanthum odoratum</i> (Sweet Vernal).	<i>Phleum pratense</i> (Timothy).
<i>Alopecurus pratensis</i> (Meadow Foxtail).	<i>Poa nemoralis</i> (Wood Meadow Grass).
<i>Arrhenatherum avenaceum</i> syn. <i>Avena elatior</i> (Tall Oat Grass) for special soils.	<i>Poa trivialis</i> (Rough Stalked Meadow Grass).
<i>Avena flavescens</i> (Yellow Oat Grass).	<i>Poa pratensis</i> (Smooth Stalked Meadow Grass).
<i>Cynosurus cristatus</i> (Crested Dogtail).	<i>Trifolium pratense perenne</i> (Perennial Red Clover).
<i>Dactylis glomerata</i> (Cocksfoot).	<i>Trifolium repens</i> (White or Dutch Clover).
<i>Elymus arenarius</i> (Sandy Lyme Grass) for special soils.	<i>Trifolium hybridum</i> (Alsike Clover).
<i>Festuca duriuscula</i> (Hard Fescue).	<i>Trifolium minus</i> (Yellow Suckling Clover).
<i>Festuca heterophylla</i> (various leaved Fescue).	<i>Trifolium pratense</i> (Broad or Red Clover).
<i>Festuca elatior</i> (Tall Fescue).	<i>Medicago lupulina</i> (Yellow Trefoil or "Hop").
<i>Festuca pratensis</i> (Meadow Fescue).	<i>Medicago sativa</i> (Lucerne).
<i>Festuca rubra</i> (Red Fescue).	<i>Onibrychis sativa</i> (Sainfoin).
<i>Festuca ovina</i> (Sheep's Fescue).	<i>Trifolium incarnatum</i> .
<i>Lolium Italicum</i> (best imported Italian Rye Grass).	<i>Achillea Millefolium</i> (Yarrow).
	<i>Petroselinum sativum</i> (Sheep's Parsley).



# PERMANENT PASTURE, "CARTER" SYSTEM OF TURF PRODUCTION.

We classify soils under the following chief heads, varying the proportions of each variety of grass or clover accordingly :—

**Heavy clays.**

**Gravelly clays.**

**Stiff loams.**

**Rich loams.**

**Medium loams.**

**Peat soils.**

**Chalk soils.**

**Thin loams.**

**Sandy soils.**

It is advantageous to customers when ordering Grass Seeds to state full particulars of the structure of the soil and aspect of the land. If a sample of the soil can be conveniently supplied it assists materially in the preparation of a prescription thoroughly adapted to the locality.

For these soils different mixtures are used, and we give here three typical prescriptions showing the exact quantities of each component grass or clover necessary for the soil.

## HEAVY CLAYS.

lbs.

- 2 Florin.
- 1 Foxtail.
- 4 Cocksfoot.
- 2 Hard Fescue.
- 3 Tall Fescue.
- 5 Meadow Fescue.
- 7 Perennial Rye Grass.
- 6 Timothy.
- 1 Rough Meadow Grass.
- 3½ Perennial Red Clover.
- 3 White Clover.
- 2½ Alsike Clover.

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40 lbs. per acre.

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## MEDIUM LOAMS.

lbs.

- 2 Foxtail.
- 2 Dogstail.
- 6 Cocksfoot.
- 3 Hard Fescue.
- 2 Tall Fescue.
- 6 Meadow Fescue.
- 1 Sheep's Fescue.
- 7½ Perennial Rye Grass.
- 5 Timothy.
- ½ Rough Meadow Grass.
- 2 Perennial Red Clover.
- 2 White Clover.
- 1 Alsike Clover.

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40 lbs. per acre.

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## SANDY SOILS.

lbs.

- 1 Foxtail.
- 2 Dogstail.
- 6 Cocksfoot.
- 2 Hard Fescue.
- 1 Tall Fescue.
- 4 Meadow Fescue.
- 3 Sheep's Fescue.
- 2 Red Fescue.
- 7 Perennial Rye Grass.
- 4 Timothy.
- 3 Smooth Meadow Grass.
- 1 Perennial Red Clover.
- 2 White Clover.
- 1 Alsike Clover.
- 1 Suckling Clover.

---

40 lbs. per acre.

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As the result of our tests it has been proved that the prescriptions of grasses and clovers as given above will be found generally useful, but alterations are made to meet various requirements. Personally we always recommend the best as being the cheapest, and on our own farms we never sow less than 40 lbs. per acre, as we have proved that the yield of Hay from a seeding of 50 lbs. per acre over and over again pays for the small extra cost of the original seeds, besides giving the best return for the capital involved in the land, manure, labour, &c.

# PERMANENT PASTURE, "CARTER" SYSTEM OF TURF PRODUCTION.

For the formation of Permanent Pasture we prepare more than a dozen different Mixtures, each of which is specially prescribed by our Expert in accordance with the particular requirements of purchasers. The following are a few of the special prescriptions offered by us.

Each variety of grass and clover used in our prescriptions is arranged in a proportion calculated to prevent the stronger growing sorts from smothering or killing out the fine kinds which thicken the herbage.

**CARTERS PRESCRIPTION FOR GENERAL PURPOSES.**—This mixture is specially suitable for cases where a particular pasture is required for grazing different kinds of stock, such as a home paddock, &c.

TESTED SEEDS, PRICE per acre of 40 lbs., best quality 42/6 Good quality 40/- Useful quality 36/-

**Carters Prescription for Meadows.**—In this mixture we have considered the necessity of producing the maximum of hay, but each component grass is selected with due regard to its feeding value.

TESTED SEEDS, PRICE per acre of 40 lbs., best quality 42/6 Good quality 40/- Useful quality 36/-

**Carters Prescription for Dairy Farms.**—A mixture which contains a large proportion of the more succulent grasses and nutritious clovers.

TESTED SEEDS, PRICE per acre of 40 lbs., best quality 42/6 Good quality 40/- Useful quality 36/-

**Carters Prescription for Stud Farms.**—This is prepared in accordance with the request of leading horse breeders who require the elimination of some varieties of grasses and the substitution of other sorts.

TESTED SEEDS, PRICE per acre of 40 lbs., best quality 42/6 Good quality 40/- Useful quality 36/-

**Carters Prescription for Sheep Graziers.**—This mixture is adapted for wind-swept areas, downs, or hillside farms where a particularly strong growing and hardy turf is necessary. We include in this prescription a suitable proportion of other valuable forage plants, such as Burnet, Yarrow, &c.

TESTED SEEDS, PRICE per acre of 40 lbs., best quality 42/6 Good quality 40/- Useful quality 36/-

**Carters Prescription for Orchard and Park Lands.**—Where especially fine close pasturage or turf is required in an orchard or park, and in other cases where the turf is partially shaded by trees, this mixture is recommended.

TESTED SEEDS, PRICE per acre of 40 lbs., best quality 42/6 Good quality 40/- Useful quality 36/-

**Carters Prescriptions for Water Meadows.**—In laying down land for a water meadow, care must be taken to have only those naturally indigenous grasses, &c., that withstand the periodical floodings to which they are subjected.

TESTED SEEDS, PRICE per acre of 40 lbs., best quality 42/6 Good quality 40/- Useful quality 36/-

The above prescriptions are altered to meet the requirements of different soils, and customers should, if possible, send us a sample of the field to be sown when ordering.

Other mixtures can be supplied at 25/-, 30/-, and 33/- per acre, according to prescription.

**Carters Tested Grass Seeds are also supplied for:—**

Railway Embankments,  
Churchyards,

Cemeteries,  
Rabbit Warrens,

Disused Gravel Pits,  
Football and Cricket Grounds.

We are glad to give customers every advice and assistance that they may require in the laying down of land to grass, and when large acreages are to be sown or renovated, we can arrange for our Expert to inspect and report upon the site by appointment.

# GRASSES and CLOVERS for LEYS and ALTERNATE HUSBANDRY.

For the ordinary purposes of a one, two, or three years' ley, where it is definitely intended to break up the land again at the end of a specified time, we continue to supply our mixtures which have stood the test for so many years. Read the notes on the Carter System of Turf Production, pages 54 and 55.

The seeds employed are those of such varieties as give the greatest weight of hay and make the heaviest pasture in the shortest possible time. The selection is also influenced by the purpose for which the layer is required; whether for hay, for cattle or sheep pasture, or for a combination of these. The formation upon which the soil rests must also be taken into account.

The time for sowing should be as soon as the corn has taken a good hold of the ground. If the barley drilling has been neatly finished, no preparation will be needed before sowing the seeds, which will be best distributed by the hand-barrow or broad-cast horse machine, and harrowed in with the light seed-harrows or chain-web, finishing off with the roller. Where the corn is hoed, the seeds are sometimes worked in during this operation.

When clovers and grasses are sown together, a good dressing of farmyard dung in the autumn will be of great service, and this may be with advantage supplemented with a special manure in the spring. Where clovers are sown alone the dung may be applied in autumn and the special clover manure in the spring.

About the middle of March, or in early spring, fields of young clover should be well picked of large stones and then rolled. Clover, being such a valuable plant, has often been grown too frequently upon the same land, which consequently becomes "clover-sick." This may be avoided to a great extent by adopting the six-course instead of the four-course rotation, or by taking a crop of beans instead of clover every alternate year in the four-course rotation.

**Trefoil** (*Medicago lupulina*) is, in some districts, sown by itself at the rate of about 18 lbs. to 20 lbs. per acre, and is found to be very valuable for producing early sheep-feed. It is especially useful where fat lambs are fed for early sales.

The following is one of several pleasing letters we have received from customers:—

Church of England Home for Waifs and Strays,

Hedgerley Court Farm,

"We are just cutting our clover hay, the seed of which you supplied. I thought you would be interested to know that the bents are over 4½ feet high, whilst the clover is a splendid crop; there is not such a crop for miles around."—A. C. S.,  
June, 1910.



# CARTERS GRASS SEEDS FOR LEYS.

The following type prescriptions will be found well adapted to the various rotations of crop for which they are prepared, and in such proportions as will produce the largest Hay Crop and quantity of nutritious food for the duration of time for which they are specified.

## CARTERS TYPE PRESCRIPTIONS.

### For 1 YEAR'S LEY.

#### MEDIUM SOILS.

lbs.	
5	Red Clover.
2	Alsike Clover.
1	White Clover.
3	Perennial Rye Grass.
4	Italian Rye Grass.
3	Cocksfoot.
2	Timothy.

20 lbs. per acre.

### For 2 YEARS' LEY.

#### LIGHT SOILS.

lbs.	
3	Red Clover.
3	White Clover.
1	Alsike Clover.
2	Trefoil or Hop.
4	Perennial Rye Grass.
3	Italian Rye Grass.
5	Cocksfoot.
2	Timothy.
1	Meadow Fescue.

24 lbs. per acre.

### For 3 or 4 YEARS' LEY.

#### HEAVY SOILS.

lbs.	
3½	Perennial Red Clover.
1	Red Clover.
2	White Clover.
1	Alsike Clover.
8	Perennial Rye Grass.
2	Italian Rye Grass.
4	Cocksfoot.
1½	Meadow Foxtail.
2	Meadow Fescue.
3	Sheep's Fescue.
4	Timothy.

32 lbs. per acre.

Each of the prescriptions is varied according to different soils and Customers' particular requirements.

## FOR ONE YEAR'S MOWING OR GRAZING.

#### HEAVY SOIL.

20 lbs. per acre, best quality, costing	...	s.	d.
20 lbs. per acre, good useful quality, costing	...	16	6

#### MEDIUM SOILS.

20 lbs. per acre, best quality, costing	...	16	6
20 lbs. per acre, good useful quality, costing	...	15	6

#### LIGHT SOILS.

20 lbs. per acre, best quality, costing	...	s.	d.
20 lbs. per acre, good useful quality, costing	...	16	6

Other prescriptions for 1 Year's Ley consisting of Mixed Clovers, Timothy and Italian Rye Grass, or Trefoil with Timothy and Rye Grass or Mixed Clovers only.

From 13/6 to 18 6 per acre.

## TWO YEARS' MOWING OR GRAZING.

#### FOR HEAVY, MEDIUM OR LIGHT SOILS.

2½ lbs. per acre, best quality, costing	...	s.	d.
2½ lbs. per acre, good useful quality, costing	...	21	0

## THREE OR FOUR YEARS' MOWING OR GRAZING.

#### FOR HEAVY, MEDIUM, OR LIGHT SOILS.

32 lbs. per acre, best quality, costing	...	s.	d.
32 lbs. per acre, good useful quality, costing	...	26	0

## CLOVER AND GRASS SEED FOR TEMPORARY PASTURES.

CARTERS SPECIAL PRESCRIPTIONS FOR HEAVY, MEDIUM, OR LIGHT SOILS.  
Prices, 25s. and 30s. per acre.

Full particulars and details of prescriptions for leys and temporary pastures on application.

SPECIAL QUOTATIONS FOR LARGE ACREAGES.

Please state when ordering whether the crop is required principally for Grazing or for Mowing.

## THE RENOVATION OF GRASS LANDS.

When a piece of grass land has become mossy and foggy, it requires some special treatment to restore it to its former freshness, and we recommend the following plan as generally applicable. Put the heavy harrows over the ground in different directions until all the moss and rough herbage have been loosened; collect this with the horse-rake and remove it, give a liberal dressing of a good compost, such as earth and lime, and drill in a specially-prepared mixture of seeds, about 10 to 20 lbs. per acre, weighting the coulters well, and finish off with the roller. Possibly this plan is known to and adopted by many, but as we are frequently asked how to apply our renovating seed, it has occurred to us that some difficulty is experienced on the subject, and we take this opportunity of suggesting what, from our knowledge and experience, we find to be the best method.

Another plan is that of penning sheep very closely for a night over the newly-sown seed, which answers very well where there is only a small quantity of land to go over. Of course it will be advisable to attend to manuring after this operation to render the good effects more lasting.

Another commendable plan for getting rid of moss is by penning sheep fed with swedes, cake, or corn, regularly over the field.

These methods will only apply where the moss is due to want of fertility, but in addition to this, should the land be damp, draining will have to be the first part of the treatment.

It is not always possible to thoroughly renovate old pastures. When they become hide-bound, for instance, it will be more expedient to break them up, and this is best done by paring and burning. A crop of roots should then be taken, and the land again seeded down.

Newly laid down Grass that is thin from local causes can be readily brought into a proper condition by the addition of a few pounds of Renovating Seeds per acre. A little scratching with a harrow, one way before putting the seed in and crossways afterwards, followed by a good rolling, is all the cultivation that is necessary.

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## RENOVATING GRASSES AND CLOVERS.

Composed of those species of permanent Grass Seeds and Clovers that are best suited for sowing on thin Meadows or worn-out Pastures, and that will speedily improve the quality and increase the produce.

### CARTERS RENOVATING GRASSES AND CLOVERS.

				Per lb.	Per cwt.
Strong growing fine-leaved varieties	...	...	...	<b>1/4</b>	<b>145/-</b>
Coarser growing varieties	...	...	...	<b>1/3</b>	<b>135/-</b>

# CARTERS GRASSES AND CLOVERS FOR AUTUMN SOWING.

## SPECIAL MIXTURE FOR PERMANENT PASTURE.

The practice of laying down land to grass at the end of August and early in September is extending each year; indeed, many authorities recommend this time as the best season of the year for this operation, where soil is suitable, and in many seasons autumn is more favourable to the production of a good sole of grass if warm autumnal rains are experienced. We prepare special prescriptions of Permanent Grasses suitable for autumn sowing in accordance with the needs of various soils, aspects, and requirements, from

**27/- to 42/- per acre.**

Further particulars and prices on application.

## RAPID-GROWING GRASSES AND CLOVERS.

The importance of sowing a mixture of fast-growing Clovers together with Rye and other varieties of grasses on the stubbles is now well understood, and each year an increasing acreage is being sown with our **Special Autumn Mixture**, which will, with the necessary moisture, produce a useful crop by the end of September.

**This Fine and Economical Mixture** should be sown at the rate of from 30 to 50 lbs. per acre on well-harrowed stubbles, or upon freshly-ploughed land, and care must be taken to provide the necessary rollings so that the young plant does not perish. **This Mixture is also suitable for renovating Clover Leys.**

				Per lb.	Per cwt.
Carters Special Autumn Mixture ...	...	...	...	<b>8d.</b>	<b>70/-</b>

*Prices subject to alterations after the end of September.*

## MIXED HAY SEEDS.

We are in a position to offer Hay Seeds containing a mixture of all sorts of Grasses and Clovers. It has been analysed by our certified Botanist, and found to contain many nutritious and permanent Grasses, such as Perennial Rye Grass, Italian Rye Grass, Cocksfoot, Timothy, various Fescues and Poas, Red, White, and Alsike Clover, &c., &c., and some Weed Seeds.

We wish to point out that this is a mixture which it is impossible to machine-clean, so that the Weeds natural to Old Grass Land remain in.

For Railway Embankments, Rough Lands, and for seeding unprofitable land in the most economical manner, the mixture will be found useful, and, from this point of view, is of exceeding good value.

**Sow 40 lbs. per acre.**

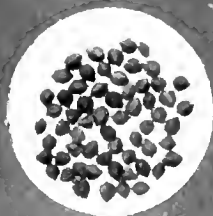
**Price 50/0 per cwt.**

*Special quotations for large quantities of these mixed Grass and Clover seeds posted on application.*

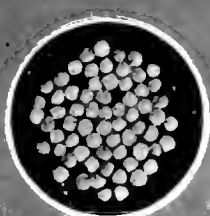


# CLOVER

AND  
SOME OF THEIR IMPURITIES



SORREL



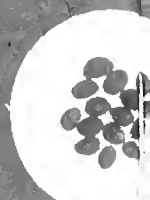
CHICKWEED



RIBGRASS



PIGEONGRASS (GREEN)



PENNYGRASS



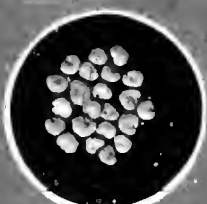
CRANESBILL (DOVESFOOT)



KNOTGRASS



WILD CARROT



CAMPION



HEDGE PARSLEY



DODDER



RED CLOVER



WHITE CLOVER

A reduced reproduction of a photograph in our Seed Testing Laboratory at Raynes here enlarged to about

Agriculturists and Botanists are cordially invited to ins

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TIES (WEED SEEDS)



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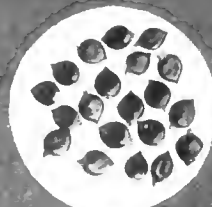
PIGEON GRASS (YELLOW)



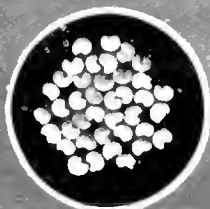
DOCK



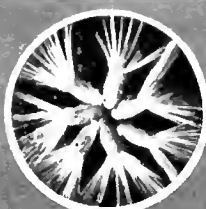
NIPPLEWORT



SPOTTED PERSICARIA



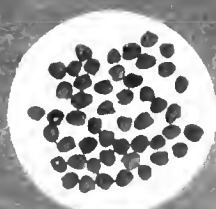
POPPY



KNAPWEED



CHAMOMILE



ALSIKE CLOVER



CRANE'S BILL



THISTLE



OX-EYE DAISY

ts Park. The original is the work of our Consulting Botanist, and the seeds are  
ut three diameters.

nspect our Laboratory and methods of seed testing.



## THE CARTER SYSTEM OF TURF PRODUCTION.



### FIRST RECORD.

#### SUNNINGDALE—FROM HEATHER TO TURF IN 12 MONTHS—BY THE CARTER SYSTEM.

Sunningdale was turned from a waste of heather into a first-class golf course by the "Carter" System in twelve months—The First Golf Course produced entirely from seed. Willie Park, jun., the well-known golf course architect, was responsible for the planning and construction.



### SECOND RECORD.

#### WALTON HEATH—FROM PLOUGH TO PLAY IN 9 MONTHS—BY THE CARTER SYSTEM.

WALTON HEATH GOLF CLUB, SURREY, 21st December, 1903.

... You have converted a waste of heath and furze into a first-class 18-hole golf links, and produced a splendid turf "through the green" and putting greens, which promise to rank with the best in the country.

(Signed) W. HERBERT FOWLER.



### THIRD RECORD.

#### COOMBE HILL—FROM WOODED WASTE TO TURF IN 6 MONTHS BY THE CARTER SYSTEM.

COOMBE HILL GOLF CLUB, MAIDEN, January 23rd, 1911.

DEAR SIR,  
We take this opportunity of saying how very pleased we are with the extremely fine quality of the turf with which you have provided us at Coombe, both for the course and greens, and for the very thorough manner in which you carried out the sowing.—  
Yours truly,

(Signed) GEO. ABERCROMBY, Secretary.



## THE CARTER SYSTEM OF TURF PRODUCTION.



### FOURTH RECORD. THE CARTER SYSTEM IN AMERICA.

GENTLEMEN,

I sowed Carters Putting Green Mixture between the 4th and 8th of September, 1909, cut the grass twenty days later, and opened the greens for playing five weeks after seeding. —Yours very truly,

BELMONT SPRING COUNTRY CLUB, WAVERLEY, MASS. U.S.A.

(Signed) F. C. PICKERING, *Greenkeeper.*



### FIFTH RECORD. THE CARTER SYSTEM IN FRANCE.

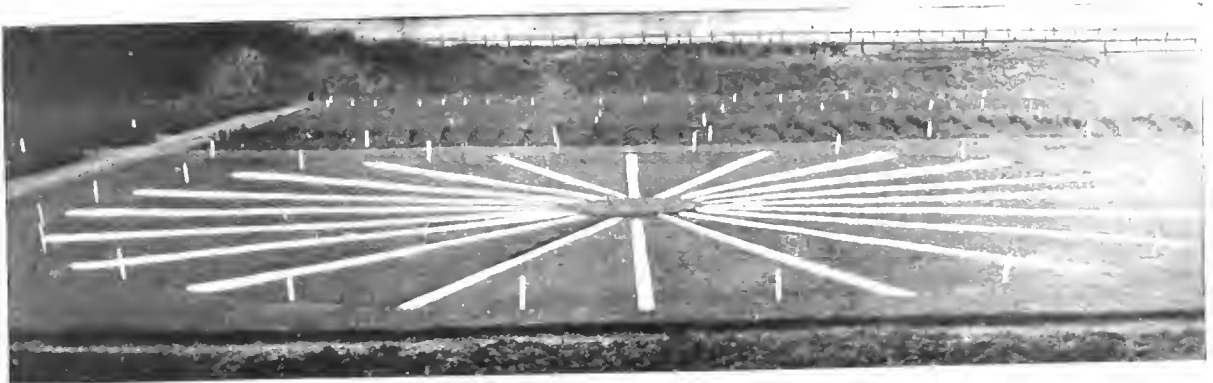
J. R. HAY GORDON, Esq.

DEAR SIR,

We, the undersigned, desire to tender to the Committee of the Nice Golf Club and yourself our sincere thanks for the kindness and hospitality shown to us during our recent visit, a visit we thoroughly enjoyed. Three of us visiting the links again after an absence of four years, and reviewing the great progress that they have made, we were specially struck with the excellence of the greens. We should like to say that the putting greens you possess reflect the highest credit on those responsible for them. The turf upon them is firmly knit, uniformly good, and of splendid texture: in fact it is rarely that one has the pleasure of putting over a better or more true surface.

THE GRAND CONTINENTAL HOTEL, ROME, April 7th, 1911.

(Signed) JAMES BRAID, A. MASSY, J. H. TAYLOR, J. G. SHERLOCK.



Testing various Varieties of Grass for Putting Greens, Lawns, &c. Each section being a different variety of Grass.

# CARTERS LAWN GRASS SEEDS.



SOWN SEPT. 4<sup>th</sup> 1910

PHOTOGRAPHED MAY 15<sup>th</sup> 1911.



Carters Grass Seeds are used on the estates of  
**HIS MAJESTY THE KING at WINDSOR and SANDRINGHAM,**  
 and also supplied to  
**Lord's, The Oval, All-England Tennis Grounds, Ascot and**  
**Newmarket Race Courses, and all the leading Golf Clubs**  
**at Home and Abroad.**



Grass Seeds prescribed for all Soils and Purposes.

For Lawns. •  
 Cricket Grounds.  
 Croquet Lawns.  
 Shaded Lawns.  
 Town Lawns.

For Tennis Courts.  
 Bowling Greens.  
 Football Fields.  
 Polo Grounds.  
 Racecourses.

For Putting Greens.  
 Golf Courses.  
 Archery Grounds.  
 Cricket Pitches.  
 Recreation Grounds.

## CARTERS FINEST GRASS SEEDS.

As supplied to His Majesty's Golf Grounds, Lawns, and other parts of the Royal Estates. A mixture of the very fine bladed species, which, if sown, according to our recommendations, should produce a close thick turf on all good soils, and is especially suitable for all games in which the ball is required to run true.

Price **35s.** per bushel of 25 lbs.; **19s.** per half-bushel; **1s. 9d.** per lb.

## CARTERS FINE GRASS SEEDS.

A prescription adapted for cold and ungenerous soils, or in any confined situation. A very useful mixture, but of coarser texture than above.

Price **30s.** per bushel of 25 lbs.; **16s.** per half-bushel; **1s. 6d.** per lb.

**For Prices of Carters Complete Grass Manures and Carters Worm Killer, see page 88.**

## CARTERS GRASS SEEDS FOR GOLF LINKS.

(See pages 64 and 65.)

Under the "Carter System" a golfing turf of the finest description, similar to that found on the best sea-side links, can be produced almost anywhere and on almost any class of soil in from six to twelve months, and as golf courses are judged to a large extent by the nature of their turf, this is a point of the utmost importance to those interested in the formation of new courses.

**During the last ten years nearly 100 new or enlarged Golf Courses have been sown with Carters Tested Grass Seeds.**

Our price for Grass Seeds for "through the green" ranges from **21s. 6d.** per bushel to **35s.** per bushel, according to the texture of grass desired and the time the links are required for play.

**Carters Grass Seeds for Recreation Grounds, Race Courses, and other open Spaces.**

We prepare mixtures of hard-wearing grass suitable for this purpose at prices varying from **21s. 6d.** to **30s.** per bushel.

## HINTS WHEN ORDERING GRASS SEEDS.

We would respectfully ask our customers, when ordering grass seeds, to give as much information as possible on the following questions; this will assist us in supplying the most suitable mixture for the particular purpose for which the seed is required.

**What is the nature of the soil: heavy, medium, or light? Purpose for which the lawn is required:**

Pleasure lawn.  
Croquet.  
Tennis.  
Putting greens.

Golf courses "thro' the green."  
Bowling greens.  
Cricket pitches or outfield.  
Polo ground.

Recreation grounds.  
Football fields.  
Shaded lawns or under trees.  
Town lawns.

Archery grounds.  
Race courses, etc.

Is the seed required for a new lawn? If so, send a sample of soil.

Is the seed required for renovating an old lawn? If so, send a sample of existing turf.

Is the ground in good heart?

Do you intend to manure the ground? If so, can you procure any well rotted farm or stable manure?

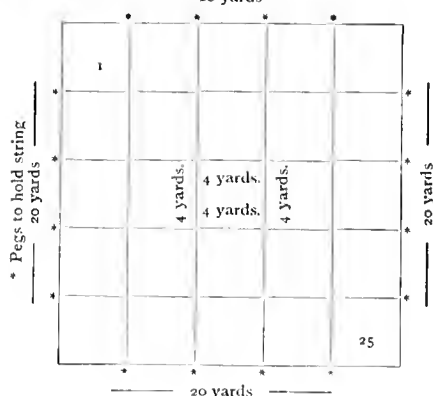
Is the ground well drained? Is water laid on? Quality of seed required.

NOTES.—The finest mixture (at 35s. per bushel) is a term used to describe the texture of the turf when grown, and is the very best for pleasure lawns, and lawns devoted to games of skill where the ball is required to run accurately, and for every purpose when best results are required.

The fine mixture (at 30s. per bushel) will also produce a first class turf of coarser texture than the finest; it is most reliable but is intended for ground which may not be worth the heavier expenditure.

To ascertain the nature of the soil, take a handful of damp soil and compress it in the hand, if it binds tightly it can be called a heavy soil, if it binds but not tightly it is a medium soil, if it does not bind at all it is a light soil.

A SIMPLE GROUND PLAN.  
20 yards



## SOWING GRASS SEEDS.

A PLOT 20 YARDS EACH WAY, OR 400 SQUARE YARDS, READY FOR SOWING, MARKED OUT WITH STRING INTO 25 SQUARES OF 4 YARDS EACH WAY, OR 16 SQUARE YARDS.

## QUANTITY OF SEED REQUIRED.

One bushel of seeds weighs 25 pounds. The ground should be divided into squares of 4 yards each way, or 16 square yards (*see Diagram*), and the seed required for that area should not be less than 1 pound, which is at the rate of 1 bushel of 25 pounds to an area of 20 yards each way, or 400 square yards.

For renovating purposes, from 4 to 12 lbs. would be required, according to the state of the existing turf for the above area 20 yards square or 400 square yards.

*When desired, we are always pleased to send our Expert to inspect and advise upon Golf Courses, Lawns, and other Grass Lands, &c., by arrangement.*



# CARTERS PERENNIAL RYE GRASS.

## LOLIUM PERENNE.

There is little doubt that the use of Rye Grass has been, and still is, at times very greatly abused. This abuse, in some instances, arises from the demand for so-called cheap Seeds. On the other hand, we believe that the most prominent opponents of the use of Rye Grass in the best pastures are of opinion that its exclusion is not desirable where the Seeds are intended to be sown upon land that is admitted to be below a certain commercial standard of value for agricultural purposes. It is also indisputable that where the hay or the pasture is required for horses, or for mixed grazing, Rye Grass is equally necessary, and it is an important fact that amongst the best farmers in Scotland Rye Grass forms the most prominent ingredient in the mixture of Seeds sown. It should, however, be borne in mind that land laid down to pasture in Scotland is generally broken up again within a period of from four to six years, so that this statement applies rather to the value to be attached to Rye Grass as a Hay Crop than to its adaptability for pastures of undefined duration, although it largely dominates among the grasses in all the old natural pastures found in the richest milk and butter producing districts of the country.

Perennial Rye Grass is necessary in many prescriptions for permanent pastures as well as for those intended to produce crops of more limited duration.

It is generally recognised that Perennial Rye Grass is of value in almost all cases where large crops of herbage are required, but at the same time it is necessary to remember that, whereas on soils congenial to its requirements it is enormously productive and of high nutritive quality, in other cases, and where the soil and the surrounding conditions are not so favourable, the results, both as to extent of crop and feeding properties, are considerably lessened; hence the necessity for the proper adaptation of varieties and proportion of quantities of Grass Seeds intended for permanent pastures, as illustrated in the system we have adopted with unqualified success for many years.

The principal cultivated varieties of Perennial Rye Grass are: *Lolium perenne* (Perennial Rye Grass), *Lolium perenne Paceyianum* (Pacey's Perennial Rye Grass), *Lolium perenne sempervirens* (Evergreen Perennial Rye Grass). Usually flowers early in July.

## CARTERS PERENNIAL RYE GRASS.

TESTED SEED FOR GERMINATION AND PURITY.

Perennial Rye Grass.—Carters best selected								Per quarter.	Per bushel.
								s. d.	s. d.
<b>Heavy Seed</b> ... ..								<b>66 0</b>	<b>8 6</b>
<b>Pacey's Perennial Rye Grass</b> ... ..								<b>62 0</b>	<b>8 0</b>
<b>Perennial Evergreen Devonshire Heaver</b> ... ..								<b>58 0</b>	<b>7 6</b>
<b>Perennial Rye Grass</b> ... ..								<b>54 0</b>	<b>7 0</b>

# CARTERS ITALIAN RYE GRASS.

## LOLIUM ITALICUM.

Italian Rye Grass is larger and altogether more robust than perennial Rye Grass. It may be cultivated successfully upon as wide a range of soils as any of our forage plants, but gives the heaviest returns upon those which are well drained, deeply cultivated, and somewhat tenacious in texture. For some time it was only used in mixtures with other grasses and clovers for pasturage, but is now a fashionable forage crop, sown alone, and for which purpose, on account of its early and rapid growth, it is admirably adapted. It is, however, in the application of this grass to the requirements of sewage farming and of irrigated grass land generally that *Lolium Italicum* has become of first importance. The enormous crop of Carters Italian Rye Grass produced during the past few years upon the Aldershot, Beeston, Birmingham, Romford, Barking, Leamington, Croydon, Doncaster, Wrexham, Eton, Nottingham, Bedford, Northampton, Barnet, and other leading Sewage Farms is unapproached by the yield of any other green forage crop.

Italian Rye Grass may be sown from early spring till late autumn at the rate of four bushels per statute acre. If sown sufficiently early in autumn it will often give a cut before winter. The ground should be well prepared by the application of as much farmyard manure as the plough will turn under. At seed-time, and immediately after each cutting, where liquid manure or sewage is not available, such portable manure as spring top-dressing, nitrate of soda, guano, or, indeed, any manure containing a large percentage of readily available ammonia, may be applied. The surface should be finely tilled and well consolidated, a good plan being to finish the tillage operations with the Cambridge roller, and to sow the seed in the furrows by that implement, then cover lightly with a bush-harrow, and finish off with a light roller if the weather is dry.

With regard to the quantity of produce, 10 tons per acre have been cut six weeks after sowing. In the ordinary way about four or five cuttings may be made, giving 8 or 10 tons at each cutting, but under irrigation or sewage, as many as eight or ten cuttings may be taken, giving about 10 tons at each cutting. Thus we find that about *ninety tons* per acre per annum may be taken as the average produce under sewage or irrigation.

Italian Rye Grass is very nutritious, is eaten greedily by all kinds of stock, and, although very succulent, it does not scour the animals. It should be mown just as the ear is beginning to show, and, if not allowed to seed, will prove of great value the second year, and is, moreover, earlier, except in cold, wet, spongy soils. If it is required for the formation of flesh or muscle, as in growing or working animals, it should be cut more frequently than where it is given to milch cows or fattening animals. It is especially suitable for dairying, as securing through about nine months of the year a constant supply of succulent food.

### TESTIMONIAL.

"I have a field of 14 acres of your Superfine Italian Rye Grass. I had six crops from it at an average weight of 12 tons per crop. The third crop this year was commenced on July 1st and is about the same weight per acre, and I consider I shall get three more crops from the field this year."—Mr. A. A. AVIS, Stoke Farm.

### TESTED SEED FOR GERMINATION AND PURITY.

						Per quarter.		Per bushel.	
						s.	d.	s.	d.
<b>Carters Superfine Evergreen Italian Rye Grass.</b>	—The best variety in cultivation. The most rapid-growing								
and best early food for Sheep and Cattle	...	...	...	...	...	62	0	8	0
<b>Improved Italian Rye Grass</b>	...	...	...	...	...	58	0	7	6
<b>Italian Rye Grass</b>	...	...	...	...	...	45	0	6	0

### SPECIAL QUOTATIONS FOR LARGE QUANTITIES.

# CARTERS NATURAL GRASSES.

Our Grass Seeds are all tested three times for germination and purity, and have been passed by our resident Analytical Botanist.

We are particular to obtain every parcel as free from weeds as possible, and would refer our customers to page 5, in which we give a few notes as to the danger of using uncleaned seeds.

Owing to the prolonged drought last year and the consequent difficulty experienced in harvesting grass seeds without losing a large proportion of the seed, prices are much higher than in preceding years, while the stocks are in most cases smaller than they have been in normal years.

The prices are liable to fluctuation and are subject to stocks being unsold upon receipt of order.

	Best Quality, per lb.	Good Quality, per lb.
<b>Brome Grass</b> ( <i>Bromus species</i> ). Remarkably quick strong growth, very succulent and sweet. The seed should be sown at the rate of 30 to 40 lbs. per acre, the first or second week in April.	1/6	—
<b>Crested Dogtail Grass</b> ( <i>Cynosurus cristatus</i> ). Dogtail is one of the most useful grasses we have, for though not of coarse habit, it is invaluable in helping to form a good sole to a pasture, more especially upon soils of a chalky, gravelly, or generally light description. In consequence of the depth to which the roots extend, its vitality and vigorous growth in hot weather are preserved at a time when many other varieties are parched up and rendered useless. Deer, as well as sheep and other close-grazing animals, are very fond of Dogtail.	1/6	1/4
<b>Cocksfoot</b> ( <i>Dactylis glomerata</i> ). Cocksfoot is one of the most easily recognised and best known of British grasses, the peculiar formation of the flowering panicle being remarkably characteristic. All kinds of horned stock as well as horses eat it readily, and it is enormously productive. Possessing a very vigorous constitution, Cocksfoot may be sown upon every class of soil, and should be included in all mixtures for permanent pastures and alternate husbandry. If not kept down by grazing, it should be occasionally run over with the scythe; this induces a growth of young grass that stock will highly appreciate.	1/5	1/2
<b>Fiorin Grass</b> ( <i>Agrostis stolonifera</i> ). Found in marshes, irrigated meadows, damp woods and pastures, and frequently floating in shallow water; also on sands and clay banks. Only of second rate quality, but is useful on account of its earlier and later growth than most other grasses, sometimes affording a bite all through winter.	1/6	1/3
<b>Golden Oat Grass</b> ( <i>Avena flavescens</i> ). A creeping perennial grass growing from 1 to 2 feet high; it will be found in nearly all soils, but seems to prefer light and calcareous soils. Its shiny, bright yellow spikelets are very noticeable. Though a useful agricultural grass, its yield is very small even under favourable circumstances.	4/6	—
<b>Hard Fescue Grass</b> ( <i>Festuca duriuscula</i> ). This is an essential grass for a variety of purposes, not the least important being its adaptability to withstand prolonged drought. It is productive, and will thrive in almost any situation. It is exceedingly hardy, and consequently of great value in mixtures for permanent pastures, as assisting the scant supply of winter herbage, since it continues to grow long into the winter. Sheep and other stock are very fond of its young blades, which are rolled up like a scroll. The foliage is very slender, qualifying it for use in the formation of parks and lawns, or where a fine turf is desired.	1/2	1/1
<b>Hungarian Forage Grass</b> ( <i>Bromus inermis</i> ). A strong useful grass. Will live in dry sterile soils.	1/-	—
<b>Marram, or Sea Bents</b> ( <i>Ammophila Arundinacea</i> ). For binding sandbanks by means of its turfy and creeping roots. (Crop failed.)	—	—
<b>Meadow Fescue</b> ( <i>Festuca pratensis</i> ). Meadow Fescue is used in the composition of all good mixtures, both for alternate cropping and for permanent pasture. It makes hay, and all kinds of stock eat it greedily, both in a green and dry state. Remarkably early and nutritious, abundantly productive, always succulent and tender, it may be described as probably one of our best intermediate-growing natural grasses.	2/-	1/8
<b>Meadow Foxtail</b> ( <i>Alopecurus pratensis</i> ). Foxtail is one of the valuable grasses for permanent pasture, "possessing" as described by a celebrated writer, "the three great requisites of quantity, quality, and earliness, in a superior degree to any other." It is particularly adapted for moderately stiff clays and heavy loams.	2/3	1/10
<b>Red Fescue</b> ( <i>Festuca rubra</i> ). Red Fescue Grass somewhat resembles the Hard Fescue both in seed and growth, and like that variety is especially valuable for sowing either upon land near the sea or where the effects of drought are very severe, its peculiar creeping form and deep root growth enabling it to withstand the hot dry weather, and to continue to grow freely when many other less tenacious sorts have ceased to be of value. It derives its name from the fact that the sheaths of the basal leaves are dull red in colour.	1/4	1/2



	Best Quality. per lb.	Good Quality. per lb.
<b>Reed Canary Grass</b> ( <i>Phalaris Arundinacea</i> ). This grass is suitable for marshland, banks of rivers, and sides of lakes, providing splendid cover for water fowl, snipe, &c. When the leaves are young and succulent it gives a good bite to cattle.	3/6	—
<b>Rough Stalk Meadow Grass</b> ( <i>Poa trivialis</i> ). This is a splendid grass for damp or stiff loams, upon which soil it yields abundant crops. It is to be found in all good old pastures, where it usually flowers in July. The plant comes to maturity about the second year, and the herbage is greatly relished by all kinds of stock.	2/-	1/9
<b>Sea Lyme Grass</b> ( <i>Elymus Arenarius</i> ). Succulent grass, principally used for binding loose sandy soils.	2/6	—
<b>Smooth-stalked Meadow Grass</b> ( <i>Poa pratensis</i> ). Smooth-stalked Meadow Grass is particularly adapted for dry, light soils, where it will produce an abundance of valuable and nutritious food early in the spring. It is shallow-rooted, of creeping habit, and withstands drought. A most useful ingredient, in suitable proportions, for both meadow and pasture land.	1/9	1/6
<b>Sweet-scented Vernal Grass</b> ( <i>Anthoxanthum odoratum</i> ). This fibrous-rooted perennial, growing about 12 inches high, is one of our earliest grasses and is generally the first to flower. It is of small agricultural value, though the coumarin which it contains imparts to hay a pleasing and characteristic odour, which renders it palatable to stock. In point of agricultural value Foxtail is generally considered to be superior to Sweet Scented Vernal, and it generally takes the place of this latter in a prescription of grass seeds.	4/-	—
<b>Tall Fescue</b> ( <i>Festuca elatior</i> ). This somewhat resembles the Meadow Fescue in habit, but is rather more tufted and of a coarser texture. Generally found on wet soils, river banks, &c., it is eaten by all kinds of stock, but its coarseness renders it unsuitable for including in leys or permanent pastures, except on poor clay soils, upon which it will reach maturity in the third year.	2/3	—
<b>Tall Oat Grass</b> ( <i>Arrhenatherum avenaceum</i> , syn. <i>Avena elatior</i> L.). A tall-growing perennial grass which produces a large bulk of fairly nutritious hay on stiff or wet soils. It commences to grow early and is therefore a valuable component of meadows where good crops of fog grass are required. On account of its rapid development it is included in all mixtures of seeds for leys, and is sometimes utilised for this purpose instead of Italian Rye Grass.	1/2	1/-
<b>Tall Sheep's Fescue Grass</b> ( <i>Festuca ovina pseudo-tenuifolia</i> ). An improved and tall-growing variety of true Sheep's Fescue of perennial duration adapted to most soils, though it succeeds best on light or calcareous soils. Being a valuable feeding grass it should be included in all mixtures, especially for sheep-fed pastures; it becomes fully developed about the third year after sowing.	1/4	1/2
<b>Timothy Grass</b> ( <i>Phleum pratense</i> ). Timothy Grass is most distinct both in its habit and in its seed. Horses are particularly fond of Timothy Grass, and all kinds of stock relish it. It is specially addicted to rich tenacious soils, producing an abundant and valuable herbage of high nutritive properties. It comes into profit later in the season than Meadow Foxtail or Cocksfoot, and is largely employed in alternate husbandry, particularly in the south of Scotland.	1/-	-/11
<b>Fine Sheep's Fescue Grass</b> ( <i>Festuca ovina tenuifolia</i> ). Sheep's Fescue Grass is indigenous over a wide range of soil. Cattle, and sheep especially, are very fond of it, and in some of the most northern districts of Great Britain it flourishes abundantly, sometimes forming the sole food of the Highland cattle. It is less productive than many other varieties, but its feeding properties are of great excellence. It is a most useful grass for lawns, parks, and fine turf generally, forming a fine close natural carpet of turf on all limestone soils.	1/8	1/2
<b>Wood Meadow Grass</b> ( <i>Poa nemoralis</i> ). Wood Meadow Grass, or Evergreen Meadow Grass, is one of the hardiest and most popular of the dwarf-growing and slender-leaved grasses, useful alike for pastures and in the formation of fine lawns or park grass. It also thrives well under trees and in shaded positions.	2/9	2/6
<b>Perennial Rye Grass</b> ( <i>Lolium perenne</i> ). See page 68.		
<b>Italian Rye Grass</b> ( <i>Lolium italicum</i> ). See page 69.		

Special quotations for large quantities and other particulars given on application.

We prescribe suitable mixtures of Grass Seeds for any purpose, or will quote for customers own prescriptions.

**Grass Seeds for Lawns and Golf Courses, see pages 64 and 67.**

# CARTERS TESTED CLOVERS.



## **A Few of our Clover and Grass Cleaning Machines,**

showing the one specially designed by us and familiarly known as the "Dreadnought." This is probably the largest machine of its kind in existence.

For several years past our **Machined and Tested Clover Seeds** have acquired a reputation for high germinating quality and purity which we believe is unequalled by any other firm. We are justly proud of this reputation, and spare no efforts to maintain it.

Each year we take the greatest care in the growing and selection of our Clover Seed, and having installed in our new premises at Raynes Park, London, S.W., the latest and most perfect form of seed cleaning plant procurable, we have every confidence in guaranteeing our stock, knowing them to be

## **Pure Clover Seeds, free from Weeds and Dodder.**

It is only by our knowledge of the purity of our stocks that we can make these guarantees and statements with so much confidence. Beside the purity of our Clover Seeds, the exacting tests of germination undertaken by our Resident Botanist in which every parcel is rejected that does not attain the highest possible percentage of germination, enable us to

## **Guarantee the Germination of Carters Tested Clovers.**

In these days when quantities of cheap and inferior seed are offered on the market, such a guarantee as we give is a special reason why agriculturists do well to pay the few extra pence per pound, being thus assured of obtaining a clean and robust crop.

Owing to the many parcels of uncleared Clover Seeds sold on the markets, Dodder is very prevalent in all parts of the country, and the Board of Agriculture and the Royal Agricultural Society of England strongly emphasise the necessity of warning Agriculturists against purchasing any Clover Seed that has not been examined and passed as being free from Dodder.

**N.B.—All Clovers sold by our Firm have been microscopically examined and tested by our Resident Botanist, and are guaranteed free from Dodder.**

**Special quotation given for any quantity on application.**

# LUCERNE OR ALFALFA.

**MEDICAGO SATIVA.**

This valuable forage plant is increasing in popularity as a crop suitable for all kinds of stock, and yielding a bulk of fodder unequalled by any other similar plant.

It thrives best in deep light soils, but also does well in calcareous loams. Sow 20 lbs. of seed in April in drills 8 inches apart, or broadcast at the rate of 24 to 30 lbs. per acre.

## TESTED SEED FOR GERMINATION AND PURITY.

LUCERNE SEED, FINEST QUALITY	...	...	...	...	price 1/1 per lb.; 115/- per cwt.
LUCERNE SEED, FINE QUALITY	...	...	...	...	price 1/- per lb.; 108/- per cwt.

*We recommend Purchasers of Lucerne Seed to buy the best quality.*

## CARTERS "LUCERNE" MIXTURE.

The value of Lucerne as a constituent in Permanent Pastures is admitted, but it should not be sown with the finer Grasses, to the existence of which it must necessarily prove fatal by reason of its rapid and powerful growth.

The Mixture we offer comprises the strongest growing Clovers, Lucerne, and Grasses remarkable for bulk and nutritive properties.

**SOW 40 lbs. PER ACRE. PRICE 32/- PER ACRE.**

# SAINFOIN.

**ONOBRYCHIS SATIVA.**

Sainfoin is one of the most valuable forage plants we possess for producing a quantity of nutritious hay, appreciated by all kinds of stock.

Though most suitable for chalk soils, it will produce good crops in light and dry soils, or wherever a small supply of chalk is available.

The simplicity of its cultivation and its natural ability to withstand severe springs and droughty summers are causing the acreage of the crop to be largely extended in all the southern counties.

Sow in March or April with or without a corn crop at the rate of 4 to 5 bushels per acre in drills about 9 inches apart. If milled seed is used 56 lbs will be sufficient.

*N.B.—Whilst taking every care to see that our supplies of Sainfoin Seed come from a reliable source, this is a crop which is not grown by ourselves, and we are in consequence unable to guarantee its character.*

**CARTERS SAINFOIN SEED. Tested for growth and purity.**

**GIANT. COMMON. MILLED SEED.**

Prices on application.

## CARTERS SAINFOIN MIXTURE.

Many authorities recommend a sowing of Sainfoin in conjunction with other grasses and clovers, and we therefore prepare a mixture consisting of Sainfoin, White or Alsike Clover, Cowgrass, and grasses. This mixture is specially adapted for sowing upon all soils where a full Sainfoin crop cannot be more profitably grown.

**Sow 40 lbs. per acre.**

**Price 26/- per acre.**



## CARTERS BROAD RED CLOVER.

For the production of heavy crops of nutritious Hay, **Carters Tested and Cleaned Broad Red Clover** has no equal. It is as well adapted for permanent pastures as for alternate husbandry, whilst, at the same time, it produces an abundant quantity of fodder, the nutritive properties of which are of the highest value.

Its suitability for green soiling or sheep folding, and the rapidity of its growth, tends to make this variety one of the flockmaster's most valuable crops, and some authorities state that sheep fed on Broad Red Clover are not so liable to become hoven or blown from eating this as they are from other varieties of Clover.

### CARTERS BROAD RED CLOVER

**Grows freely on a wide range of soils.**

**Stands severe weather better than most varieties.**

**Is extremely easy of cultivation.**

In sowing Broad Red Clover alone it is usual to drill or broadcast 16 to 20 lbs. of seed per acre. If mixed with Rye or other Grasses, 12 or 14 lbs. of seed suffices for an acre. For leys a lesser quantity of seed may be used. See pages 58 and 59.

### CARTERS BROAD RED CLOVER.

**1/4** per lb. ... **145/-** per cwt.

**1/3** „ ... **135/-** „

**1/1** „ ... **115/-** „

Special quotations for quantities.

## CARTERS GIANT COW GRASS.

A robust heavy yielding variety of Red Clover which, though rather slow in attaining maturity, is possessed of a more lasting character and is considered to be less liable to Clover sickness. It is therefore exceedingly valuable for including in leys which are intended to be down for some time.

Drill or Broadcast 16 to 20 lbs. per acre.

**CARTERS GIANT COW GRASS.**—Tested seed for germination and purity.

**1/5** per lb., **150/-** per cwt.; **1/4** per lb., **145/-** per cwt.;

**1/3** per lb., **135/-** per cwt.

**Carters Cow Grass**, single cut.

**1/4** per lb., **145/-** per cwt.; **1/3** per lb., **135/-** per cwt.

*We always send the best quality in Clover Seed unless otherwise instructed.*



Sample of our Superfine Clover Seeds, showing strong and regular germination.



A sample of ordinary Clover Seeds, showing a weak, erratic growth.

## CARTERS TESTED AND GUARANTEED CLOVERS.

			PRICE.	
			Per lb. s. d.	Per cwt. s. d.
<b>Carters White Clover</b> ( <i>Trifolium repens</i> ) ... ..	Sow 16 lbs. per acre.	...	1 10	196 0
			1 9	188 0
			1 8	180 0
			6 0	—
<b>Carters Giant White Clover</b> ( <i>Trifolium alba giganteum</i> )	Combines the feeding properties of Broad Red Clover with the hardiness of ordinary White, though growing more than twice the size of the latter.			
Sow 10 lbs. per acre.				
<b>Carters Alsike Hybrid Clover</b> ( <i>Trifolium hybridum</i> ) ...	Sow 16 to 20 lbs. per acre.	...	1 4	145 0
			1 3	135 0
			1 2	125 0
			0 10	90 0
<b>Yellow Trefoil, Nonsuch, or Hop Clover</b> ( <i>Medicago lupulina</i> ) ... ..	Sow 16 to 20 lbs. per acre.	...	0 9	82 0
			0 8	72 0
			1 1	—
			1 4	145 0
<b>Yellow-flowered Suckling Clover</b> ( <i>Trifolium minus</i> ) ...	Sow 10 lbs. per acre.			
<b>Mixed Perennial Clovers</b> ... ..	Sow 20 lbs. to 30 lbs. per acre.			
<b>Sweet-scented Bokhara Clover</b> ( <i>Melilotus leucantha</i> ) ..	Sow 8 lbs. per acre.			
<b>Birdsfoot Trefoil</b> ( <i>Lotus corniculatus</i> ) ... ..	Sow 20 lbs. per acre.			
<b>Trifolium incarnatum, Early Red, Late Red, Late White</b> ... ..	Sow 20 lbs. to 30 lbs. per acre.		Price upon application.	

We always send the best quality in Clover Seed unless otherwise instructed.



A view of the "Cage" at our Trial Grounds, in which the hybridisation and origination of new Cereals is carried out.

## CARTERS IMPROVED CEREALS.

Great as is the care we expend in the improvement of all farm seeds, the success which has attended our efforts to improve standard types of cereals is only the result of many years' continuous attentions and personal supervision in the selection, growing, and cleaning of our stocks.

Amongst the new or improved cereals introduced during the past quarter of a century, none have acquired more lasting or popular commendation than those associated with our name; **Carters Red and White Stand Up Wheat, Carters Prize Prolific and Goldthorpe Barley**, together with **Carters Cluster Oats**, are now recognised standard varieties throughout the world, as they constitute the highest degree of superiority to which the respective types can be brought.

Foreign and Colonial Governments have long realised this superiority of our cereals, and each year we export to foreign corn-growing centres large quantities of our original stocks for the purpose of regenerating local varieties with our pedigree strains.

Besides rigorously keeping our existing varieties true and pure, we are constantly on the look-out for better sorts which may possess some special merit or characteristic to justify their being grown by the public.

For this purpose we make comparative trials of nearly all the different kinds of Wheat, Barley, or Oats, and also raise each year a number of experimental crosses or hybrids, which are carefully selected should any show a marked advantage.

This work is in charge of an Expert Cerealists, and under his constant supervision all our stocks of seed corn are grown, so that any deterioration in type is at once detected.

Our customers may therefore rely upon our assurance that every variety of Wheat, Barley Oats, or other farm seed we catalogue represents the best and most profitable strain, fully worthy to be called

## CARTERS TESTED SEEDS.



# CARTERS WHITE CLUSTER OAT.

**The Heaviest, Earliest, most Prolific, and Thinnest Skinned White Oat in cultivation.**



This highly bred cluster-headed Oat is becoming more popular every year on account of its many splendid qualities, which include—

**Its adaptability for nearly every class and condition of soil.**

**A stout growth of medium height.**

**An immense yield of grain and straw containing the maximum of nutritive feeding properties.**

**Special suitability for growing where only one variety of Oat is sown.**

Read these letters from Customers :—

“Carters Cluster was the best crop of White Oats I ever grew. The straw was the longest and strongest I have ever grown, and I am looking forward to a **yield of over 10 quarters per acre.**”—

GEORGE TIPLER, Esq.

“According to all accounts that I read Oats are a bad crop this year. The sample I am now sending you of Carters White Clusters will show that a piece I have is an exception. The stalks I am sending are 5 ft. 6 in. high, which is a fair average of the whole, much of which is over 6 ft., the straw as well as the corn being very heavy. They are growing in clayey-gravelly soil, chalk subsoil, high on the Chiltern Hills, where things are always backward; they will, therefore, probably grow another 6 or 8 in.”—GEORGE R. SHAW, Esq.

## ROYAL EAST BERKS.

**Champion Prize** for the **Best quarter of Oats**, any variety.  
**First Prize, Best White Oats.**

## MIDDLESEX.

**First Prize** for the **Best five acres of Oats**, any variety.

And several **First Prizes** at other important Shows, including Basingstoke, South Bucks, Tring, Birmingham, &c.

# CARTERS WHITE CLUSTER OAT.

**Hand-picked Seed 83 per bushel, 62/- per quarter.** Carriage paid.

It is only necessary to sow 3 bushels per acre of this highly-bred Oat.

For Spring Wheat and Winter Oats see page 84.



## CARTERS BLACK TARTAR OAT.

FIRST PRIZE, Royal Agricultural Society of England.

FIRST PRIZE, BASINGSTOKE, 1911.

Other FIRST PRIZES have been won by Customers at Wokingham, Middlesex, Tring, Chiltern Hills, South Berks, Chertsey, Chobham, in some cases many years in succession.

"I have just thrashed a crop of your Black Tartar Oats from seed supplied by you last spring. It is the heaviest I have ever grown, **yielding 112 bushels per acre.** The grain is well coloured."

Mr. A. OFFER, Steward to the late JOHN WARREN, Esq., Handcross Park.

**A RE-SELECTED STOCK.**

**7/6** per bushel; **58/-** per quarter. Imperial measure.

## CARTERS BLACK CLUSTER OAT.

We have selected this fine Oat for its earliness and prolific character. It is plump, with a thin skin, and is a black companion to our well-known White Cluster Oat.

Price **7/6** per bushel; **58/-** per quarter. Imperial measure.

5 per cent. Discount allowed for Cash with Order for all Seeds.

**ALL SEED CORN CARRIAGE PAID.**

**SPECIAL QUOTATIONS FOR QUANTITIES.**

## CARTERS WHITE OATS.



## CARTERS TRIUMPH WHITE OAT.

A robust grower. A prolific bearer. Largely grown for feeding pedigree horses.

**Carters Triumph White Oat** gave the heaviest yield (70½ bushels) of saleable grain per acre at the Yorkshire Council Experimental Farm, Garforth, where eight different varieties were grown last year.—*Vide* Report, 1910.

Price 7/6 per bushel; 58/- per quarter of 8 bushels.

## CARTERS 1,000 DOLLAR OAT.

An open-headed White Oat of heavy yielding capacity, remarkable for weight of straw, thin skin, and plump grain.

Price 7/6 per bushel; 58/- per quarter.

### CARTERS SIRDAR.

A very robust cluster-headed Oat.

Price 7/6 per bushel; 58/- per quarter.

### ABUNDANCE OAT.

Cluster-headed, strong grower.

Price 7/6 per bushel; 58/- per quarter.

Sow three bushels per acre.



# CARTERS PRIZE PROLIFIC BARLEY.

**"The Best Long-eared Barley in cultivation."**

This popular Barley was originally selected some years ago from the Chevalier, and it has rapidly won its way to public favour, being now generally recognised as the highest type of Maltster Barley. It has also acquired a very high reputation on the Continent, and the largely increased demand for Carters Seed Barleys abroad shows that the merits of our improved and selected stocks is not confined to this country.

**Carters Prize Prolific** has a long even-rowed ear, and is, as its name implies, a prolific yielder. When well grown the grain is plump and of a higher specific gravity than that usually attained by other varieties, whilst the skin or husk is of a clear pale yellow colour and exceedingly thin. It was these especial merits which obtained for this fine variety the highest award of **a Gold Medal and Diploma and six First Prizes** at the **International Brewers' and Malsters' Exhibition, London, in 1909, besides other Important Prizes both at home and abroad.**

**CARTERS PRIZE PROLIFIC BARLEY** is well adapted to producing heavy crops on almost any class of soil, but the best and finest matured samples can only be obtained when grown on rich sandy loams.

The strong and vigorous constitution possessed by our selected stock of this variety enables it to withstand the most variable climatic changes, thus permitting of it being sown much earlier than other sorts.

The straw is highly nutritious and very stout and strong, this latter characteristic preventing the corn from lodging when grown on soft or forcing soils.

## **CARTERS PRIZE PROLIFIC BARLEY,**

**Hand-picked Samples,**

Price **11/-** per bushel, **82/-** per quarter.

**Our stocks have been grown under the vigilant supervision of one of our principals; and the greatest care is exercised in the selection and harvesting of the crop.**

Drill two bushels per acre, or three if sown broadcast.

For Spring Wheat and Winter Barley, see page 84.

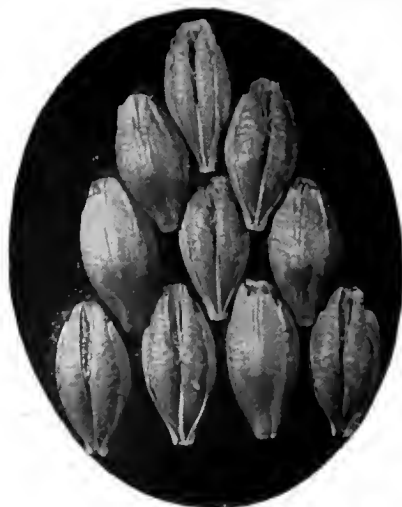


# CARTERS PRIZE PROLIFIC BARLEY.

This variety is grown regularly upon the  
Farms of

*His Majesty the King.*

During the past few years nearly all the most valuable  
prizes offered for Barley have been won by Prize  
Prolific.



**CARTERS  
PRIZE PROLIFIC BARLEY.**

RECENT HONOURS AWARDED TO CARTERS PRIZE PROLIFIC BARLEY.

**GOLD MEDAL and DIPLOMA, SILVER MEDAL and BRONZE MEDAL,  
SPECIAL AWARDS, and ELEVEN FIRST PRIZES**

AT THE

**International Brewers and Maltsters'  
Exhibition, London,**

ALSO

**GOLD MEDAL and DIPLOMA, TWO BRONZE MEDALS,  
and THREE DIPLOMAS**

AT THE

**International Hops and Barley Exhibition,  
Berlin.**

**FIRST PRIZE,** South Berks, Five Years in succession.

**FIRST PRIZE,** Wokingham, Nine Years in succession.

**FIRST PRIZE,** Tring, 1911.

**FIRST PRIZE,** Chilterns and South Bucks, 1911.

**FIRST PRIZE,** Royal South Bucks, 1911.

**And over FIFTY FIRST PRIZES at**

Henley, Bristol, Taunton, Surrey, Princes Risborough, Chobham, Williton, Middlesex,  
London, Exeter, and other Shows.

**NOTE.**—Carters Seed Barley is carefully handpicked in our Warehouse before being sent out, and  
a perfectly clean and pure sample may be relied upon.

**CARTERS PRIZE PROLIFIC BARLEY.**

Price **11/-** per bushel; **82/-** per quarter of 448 lbs.

Special quotations for large quantities.

# THE BEST MALTING BARLEY.

In all our experiments, both by cross breeding and continuous selection, our aim has always been to produce and offer to our customers year by year an ideal sample, as the best and only the best is good enough for either sowing or malting.

Carters Prize Prolific and Goldthorpe Barleys are the best in the world for either purpose, because in no other stock has such care and skill been exercised so as to develop and perpetuate all the desirable characteristics. Personal supervision in every department of our business makes it possible for us to say that all our Barleys are of the **very best** quality—**high vitality** and **high maturation**, combined with **absolute purity**, being the essential features of all our stocks, while at the same time we do not overlook the desirability of an even light colour, good size and weight, freedom from injury, true to their kind, and general uniformity in character.

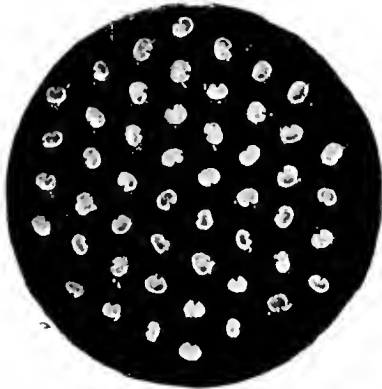
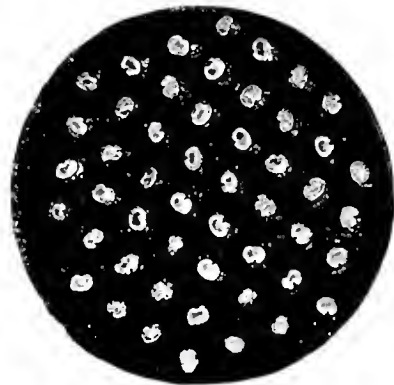


Fig. 1.—Good malting sample.



Indifferent malting sample.

Fig. 1 represents a transverse cut or section through 50 grains of Barley, and shows the white floury surface so characteristic of a good malting sample. Fig. 2, one of the half grains removed from Fig. 1 and

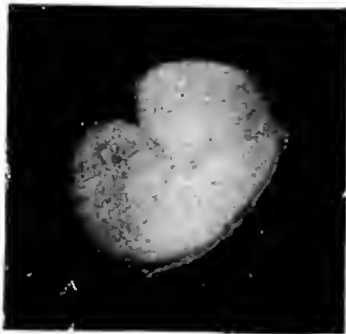


Fig. 2.—Good.



Fig. 3.—Indifferent.

magnified about eight diameters. The almost perfect maturation and quality of this grain is evidenced by the ruptured starch-containing cells of the endosperm. Barley of this class and in this condition is more easily worked by the maltster, the extract produced is greater in amount, and of better quality. In Fig. 3 the absence of uniformity in the colour of the grain, combined with a smooth instead of a wrinkled skin, is to the expert direct evidence of irregular or deficient maturation, resulting in what we know as a steely or flinty grain. Such a sample is not "kindly," and, if at all, can only be used and modified on the maltster's floor with difficulty.

"I have grown some fine Barley this year from your stock nearly every ear has 16 or 17 kernels each side, though I had been told that I cannot get Goldthorpe to grow above 14 kernels. I never grew better Barley than I have done this year."—

R. W., Thrapston, October 4th, 1911.

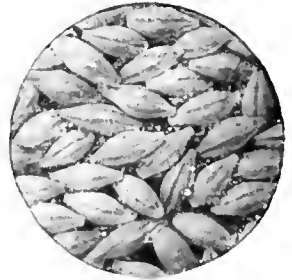


## CARTERS GOLDTHORPE BARLEY.

Introduced for the first time by us  
in 1889.

Goldthorpe Barley originated upon the land of a Nottinghamshire Farmer, and was introduced by our house in 1889. Since then we have controlled the entire stock of this fine Barley, and supplies grown from the original stock can only be obtained direct from us.

Carters Goldthorpe Barley is now too well known to need a lengthy description, but the closely-packed even-grained appearance of the ear, together with the length of straw and its robust character, marks it as a great improvement upon the Chevalier type from which it sprang. The stout straw renders it less liable to layer in rainy weather than other varieties of Barley. It ripens forward on strong land, and the grain is very level and of fine texture.



**CARTERS  
GOLDTHORPE BARLEY,  
Hand-picked,  
Sow two bushels per  
acre.**



*Photographed and Copyrighted by J. C. & Co.*

**A FINE CROP OF NINE QUARTERS PER ACRE.**

**International Brewers & Maltsters' Exhibition, London,  
BRONZE MEDAL, TWO DIPLOMAS, AND FIVE FIRST PRIZES.**

<b>FOUR FIRST PRIZES, Middlesex,</b>	<b>FOUR FIRST PRIZES, Wokingham,</b>
<b>THREE FIRST PRIZES, Basingstoke,</b>	<b>THREE FIRST PRIZES, Henley,</b>
<b>THREE FIRST PRIZES, Taunton,</b>	<b>TWO FIRST PRIZES, Birmingham,</b>
<b>and many others.</b>	

**ALL GAINED IN OPEN COMPETITION.**

**CARTERS GOLDTHORPE BARLEY.**

**Price 11/- per bushel; 82/- per quarter.**

**Hand-picked and Carriage free.**

## SPRING WHEAT.

Our stocks of Wheat for spring sowing will be found in all respects as sound and pure as our varieties for autumn sowing, which have acquired a reputation of which we are justly proud.

The undermentioned varieties represent the best re-selections of the type and the stocks have been specially grown for seed, whilst no labour has been spared to obtain them free from weeds, this being of great importance in spring sown Wheat.

**Carters Earliest of All.**—This we consider the earliest Wheat in cultivation. Straw medium length, rather thin, but stands stiff and strong on the ground; bold amber-coloured grain.

Price 9/- per bushel; 68/- per quarter.

**Carters Red Admiral.**—This fine new Wheat, of French origin, is particularly recommended for spring sowing. It grows rapidly and produces a heavy yield of large, even-coloured grain. Sow 3 bushels per acre.

Price 9/- per bushel; 68/- per quarter.

**Carters Dreadnought.**—Of all the French Wheats introduced into this country none have shown themselves possessed of so many merits as Dreadnought. It is a heavy yielder and the grain is bold and large, whilst it comes early into maturity whether sown in autumn or spring.

Price 9/6 per bushel; 73/- per quarter.

**Carters White Stand Up.**—Though this is more generally considered an autumn Wheat yet several growers sow this in the spring with satisfactory results.

Price 9/- per bushel; 68/- per quarter.

## RYE.

(*Secale sativum.*)

This crop is not cultivated to such an extent as its value demands. It is commonly taken after wheat, being put in during August and September to produce early feed, in combination with roots, from November, if weather is mild, through to the spring, and sown at the rate of 3 or 4 bushels per acre, drilled or broadcast on the furrow and harrowed in. It is frequently sown with Tares, and, if intended for feeding off with sheep, rape may also be put in with it, and it makes an agreeable fodder for cattle, put through the cutter with wheat straw.

Price 7/- per bushel.

## WINTER BARLEY.

A hardy variety, useful for autumn sowing, and valuable in its young growth as green winter and spring food, to be followed by a corn crop. Sow 1½ bushels per acre.

**Carters Re-selected,** price 8/6 per bushel; 64/- per quarter.

## WINTER OATS.

A useful Oat for autumn sowing on light lands. The young growth furnishes a serviceable fodder for soiling or nibble for sheep between winter and spring, to be followed by a corn crop. Sow 3 bushels per acre.

**Carters Selected Grey** }  
**Carters Selected Black** } Price 6/6 per bushel; 50/- per quarter.

**General List of Carters Cross-Bred Wheats and Farm Seeds for autumn sowing issued in September.**

*Carters* RAYNES PARK, LONDON, S.W.—1912.

# CARTERS PEAS AND BEANS.

All our stocks of **Peas** and **Beans** are especially grown, selected, and hand-picked, thus maintaining their world-famous reputation for purity and high germination.

The following varieties are those grown by the largest market growers, and can be quoted for on application:—

<b>First Early Peas.</b>	<b>Second Crop Peas.</b>	<b>Main Crop and Late Marrowfats.</b>
Carters Daffodil.	Alderman.	Dwarf Monarch.
Earliest of All, blue.	Carters Daisy.	Harrisons Glory.
Gradus.	Carters Delicatesse.	Juno.
Carters Mayflower.	Dicksons Favourite.	Prince of Wales.
Thomas Laxton.	Duke of Albany.	Carters Quite Content.
William 1, selected extra.	Duke of York.	The Gladstone.
Essex Star.	Dwarf Defiance.	Triumph.
The Pilot.	Stratagem.	Yorkshire Hero.

One of the largest growers in the centre of the Pea-growing district of Flaxton, Yorks, writes:—

"The *Duke of Albany* Peas have pulled off well over 900 pecks per acre, and is far the best crop around."—J. C., Flaxton, 31/8/10.

**Field Peas.**—The quick growing nimble peas are largely grown for furnishing a useful food early in the summer. Sow two to three bushels per acre. Price on application.

## CARTERS BEANS.

Carters Leviathan Broad.	Longpod, Masterpiece, Green.	Windsor Taylors extra large.
Longpod, Aquadulee.	Windsor Broad.	Windsor Carters Monster.
Longpod, Early.	Windsor Green.	Scarlet Runners.
Longpod, Green.	Windsor Carters Market Garden.	Canadian Wonder, dwarf.

**Full particulars and prices of other varieties on application.**

# CARTERS VEGETABLE SEEDS.

**For Market Growing and for the French system of Intensive Cultivation.**

Every year an increased area is becoming devoted to the production of choice Vegetables for marketing, and experience has proved that to ensure profitable returns, only the highest types and varieties must be grown.

For Market Gardeners and others who grow large quantities of vegetables for market, special quotations will be given upon our being informed as to quantities and varieties required.

## CARTERS "HOMESTEAD" BOX OF VEGETABLE SEEDS.

**PRICE 12/6 (27 different varieties), AND 7/6 (22 varieties).**

The above is offered to meet the convenience of farmers, etc., who require to stock large private gardens with vegetables at the least cost. Packing and carriage free.

**Other Collections from 2/6 to £5. Write for list of contents.**

These Collections comprise the best varieties of our selected stocks of Vegetable Seeds at much less cost than if bought separately.



# CARTERS COLLECTIONS OF TESTED FLOWER SEEDS.

In various-sized assortments to suit all Buyers, containing only the best varieties.



THE CHAMPION GOLD MEDAL EXHIBIT, SHREWSBURY, 1909.  
GROWN FROM CARTERS TESTED SEEDS.

These Boxes of Seeds are made up for the use of amateurs and others who prefer leaving the selection of the Flower Seeds to us. They are liberally constructed, and composed solely of popular things likely to produce a bright display with little trouble.

## 10/6 CARTERS COMPLETE BOX OF FLOWER SEEDS. 10/6

- |                        |                                   |  |
|------------------------|-----------------------------------|--|
| 12 choicest varieties  | Paeony-flowered Aster.            | 25 beautiful Hardy and Half-hardy Annuals, |
| 6 " "                  | Dwarf Stock.                      | such as—                                   |
| 2 oz. best mixed var.  | Sweet Peas.                       | Nasturtium, Scarlet King.                  |
| 1 oz. " "              | Tom Thumb Nasturtium.             | Poppy, all sorts, mixed.                   |
| 1 oz. finest selected  | Crimson Giant Mignonette.         | Choice Balsam                              |
| 1 oz. " mixed          | Flower Seeds for Shrubberies, &c. | Gaillardia.                                |
| 6 choice selected var. | Hardy Perennials.                 | Phlox Drummondii.                          |
|                        |                                   | Sunflower.                                 |
|                        |                                   | Silene Compacta.                           |
|                        |                                   | Convolvulus major.                         |
|                        |                                   | Petunia.                                   |
|                        |                                   | Salpiglossis, mixed.                       |
|                        |                                   | Star Zinnia.                               |
|                        |                                   | Marguerites, &c.                           |

3 varieties Everlasting Flowers.

**5/-**

## CARTERS BOX OF FLOWER SEEDS.

**5/-**

- |                                 |                                |                                     |
|---------------------------------|--------------------------------|-------------------------------------|
| Aster, choice mixed.            | Linum, Scarlet.                | Phlox Drummondii, choice mixed.     |
| Antirrhinum, choice mixed.      | Lobelia, Speciosa.             | Poppy, all varieties, choice mixed. |
| Candytuft, crimson.             | Lupinus nanus.                 | Stock, German, 1 est mixed.         |
| Convolvulus Major, mixed.       | Marguerites, choice mixed.     | Sweet Pea, choice mixed.            |
| Convolvulus Minor, dark purple. | Marigold, French, dwarf mixed. | Sweet William, choice mixed.        |
| Dahlia, best single mixed.      | Nasturtium, Tom Thumb, Scarlet | Sunflower, giant.                   |
| Dianthus Hedderwigi             | King.                          | Tagetes pumila.                     |
| Erysimum Perowskianum,          | Nemophila insignis.            | Wallflower, dark red.               |
| Everlasting Flowers.            | Petunia, choice mixed.         | Zinnia, best mixed.                 |

**2/6**

## CARTERS BOX OF FLOWER SEEDS.

**2/6**

Containing 12 separate varieties of Hardy Annuals.

All Flower and Vegetable Seeds sent Carriage Paid.

*Carters*

RAYNES PARK, LONDON, S.W.—1912.



**Carters Peas (15 tons) ready for Export to America.**

## **GIFTS FOR OVERSEA FRIENDS.**

### **CARTERS COLLECTION OF FARM ROOT SEEDS.**

During latter years a steady demand from Canada, Australasia, South Africa, South America and other countries has been experienced for our Tested Root Seeds, and in consequence we have decided to offer to our Colonial and Foreign customers, special trial collections of our well-known root seeds.

By purchasing one of these collections our many different varieties may be practically tried in order that the most suitable kinds for the local climatic conditions may be selected.

All the sorts offered have been proved to be well adapted to growing in the temperate zones of the above and other countries.

### **Carters "Wide World" Trial Collection of TESTED ROOT SEEDS.**

- |  |  |
|--|--|
| 2 lbs. Carters Windsor Mangel.           | 1 lb. Carters Elephant Swede.                      |
| 2 lbs. Carters Red Windsor Mangel.       | 1 lb. Carters Holborn Kangaroo Swede.              |
| 2 lbs. Carters Red Emperor Mangel.       | 1 lb. Carters Imperial Green Globe Turnip.         |
| 2 lbs. Carters Dreadnought Mangel.       | 1 lb. Carters Improved Purple Top Mammoth Turnip.  |
| 2 lbs. Carters Golden Tankard Mangel.    | 1 lb. each of Carters 100 Ton and Kangaroo Carrot. |
| 2 lbs. Carters Improved Long Red Mangel. | 1 lb. Carters Ennobled Kohl Rabi.                  |
| 2 lbs. Carters Holborn Invicta Swede.    | 1 lb. Carters Sugar Mangel.                        |
|  | 1 lb. Carters No. 1 Sugar Beet.                    |

With the above are also included twelve large packets of vegetable seeds, peas, beans, cabbage, onions, etc., selected according to the climate in which they are to be grown.

The whole of the above collection, carefully packed for export in wood case, delivered F.O.B. London for **21/-** net.

This collection makes a useful gift for oversea friends, and as it is sold at practically less than cost price, it can only be supplied for export from the British Isles.

### **CARTERS "EXPORT" BOX OF VEGETABLE SEEDS.**

Comprising 28 different varieties of Vegetable Seeds, packed and sent postage free to all parts of the World for **16/-**

### **CARTERS "EXPORT" BOX OF FLOWER SEEDS.**

Comprising 50 large packets of Flower Seeds, packed and sent postage free to all parts of the Postal Union for **22/-**

Each package of Seed is specially dried, enclosed in tinfoil, and packed in air-exhausted hermetically-sealed boxes.

Other collections can be made at prices varying from **7/6** to **90/-** according to quantities.

## TREES AND SHRUBS.

In order to meet the constant demands of Estate Owners, Foresters, &c., we are supplying

### **Trees and Shrubs from our Nurseries,**

for Avenues, Parks, Specimen or Shelter Trees, and general Afforestation purposes, besides Fruit Trees for orchard or garden.

All Trees are specially grown and have fine clean stems and large heads, whilst they are regularly transplanted in order to ensure an abundance of fibrous roots.

We shall be pleased to send lists of the most suitable kinds and to give quotations for any quantity on application.

## GAME COVERTS.

We have for several years recommended special Coverts adapted to local conditions of soil, aspect, &c., and including such plants as Buckwheat, Parsnip, Brome Grass, &c., in conjunction with the most suitable shrubs for the purpose. We should be pleased to give any information regarding the planting of Coverts, Woods, Parklands, &c.

## CARTERS WORM KILLER.

**For the destruction of worms in Putting Greens, Lawns, Tennis Courts, Bowling Greens, Gravel Paths, &c.**

Applied at the rate of half a pound to the square yard on a mild, damp day when the worms are rising, its effect is instantaneous, they struggle to the surface in thousands and die.

Carters Worm Killer is a non-poisonous powder which is quite harmless to animal and bird life and has a stimulating effect on grass.

14 lb.	28 lb.	$\frac{1}{2}$ cwt.	1 cwt.	5 cwt.	10 cwt.	1 ton.
Prices— <b>3/-</b>	<b>5/-</b>	<b>7/6</b>	<b>12/6</b>	<b>60/-</b>	<b>£5 10s.</b>	<b>£10 10s.</b>

## CARTERS COMPLETE GRASS MANURE.

A general top dressing for Lawns, &c. Sow at the rate of 2 ozs. per square yard, or 5 cwt. per acre.

14 lb.	28 lb.	$\frac{1}{2}$ cwt.	1 cwt.
Prices— <b>4/6</b>	<b>7/6</b>	<b>12/6</b>	<b>20/-</b>

## CARTERS ANTI-CLOVER GRASS MANURE.

Specially prepared for Cricket Grounds and Bowling Greens; retards the growth of clovers and coarse weeds. As used at the Oval, Lords, and other leading Cricket Grounds.

7 lbs.	14 lbs.	28 lbs.	$\frac{1}{2}$ cwt.	1 cwt.
Prices— <b>3/-</b>	<b>5/-</b>	<b>8/-</b>	<b>13/6</b>	<b>21/-</b>

## CARTERS GENERAL PURPOSE MANURE.

For use on large areas of turf required for field games and recreation grounds, golf courses, football and cricket fields, besides pasture land.

1 cwt.	5 cwt.	10 cwt.	1 ton.
Prices— <b>16/-</b>	<b>£3 15s.</b>	<b>£7</b>	<b>£12</b>

*These prices are carriage paid for England, Scotland, and Wales, and nearest port for Ireland.*

## CARTERITE, or DAISY KILLER,

Is a new preparation manufactured by us for the total extermination of daisies and other shallow-rooted weeds on Putting Greens, Lawns, &c. It does not poison the weeds or make the soil sterile; in reality, it is a highly concentrated manure beneficial to grasses, but when applied to daisies and other shallow-rooted weeds, effectually destroys them by burning them up.

14 lb.	28 lb.	$\frac{1}{2}$ cwt.	1 cwt.	5 cwt.
Prices— <b>3/6</b>	<b>6/6</b>	<b>12/6</b>	<b>24/-</b>	<b>115/-</b>

Carriage paid.

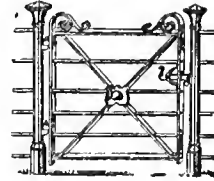
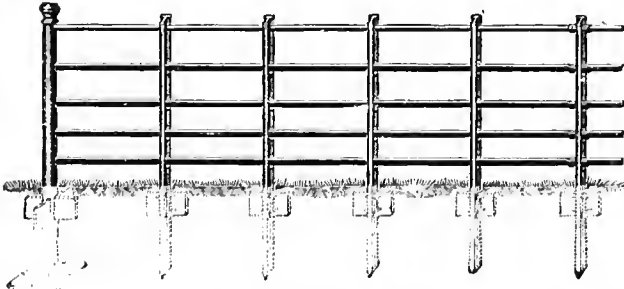
**We are always pleased to give advice on the care or renovation of Lawns, Golf Courses, &c., and send an expert to inspect these when required by arrangement.**

*Carters* RAYNES PARK, LONDON, S.W.—1912.



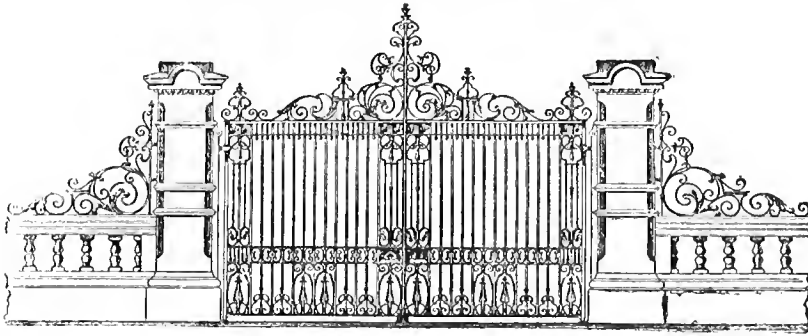
# BAYLISS, JONES & BAYLISS,

Mfrs. of  
IRON FENCING, &c. LIMITED



Low prices.

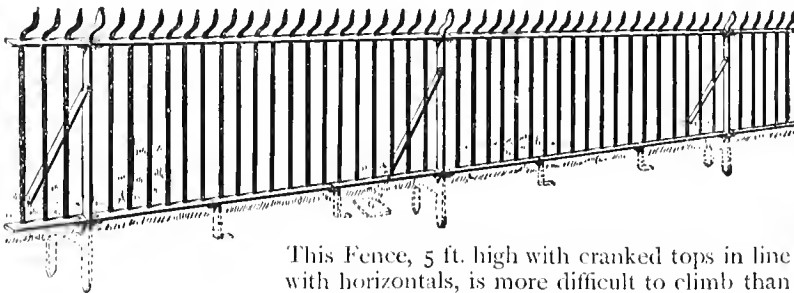
## HAMMERED IRON GATES.



Tree  
Guards.



## THE MOST UNCLIMBABLE RAILING ON THE MARKET.



This Fence, 5 ft. high with cranked tops in line with horizontals, is more difficult to climb than if 6 ft. high with straight-pointed Bars.

Best  
Jet-  
Black  
Varnish.

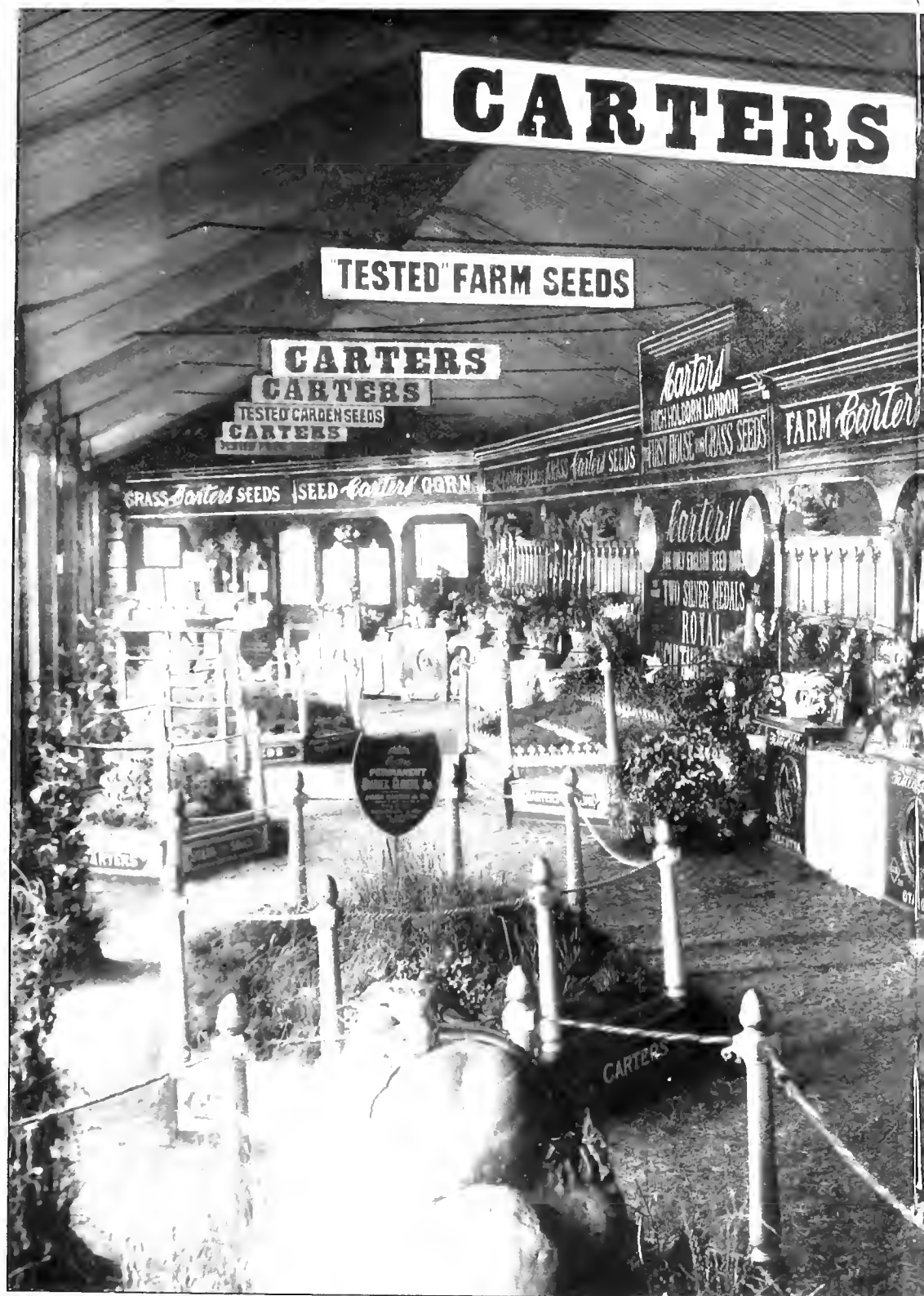


From 1s. 3d.  
per gallon.

Catalogue Free.

# WOLVERHAMPTON.

London Offices & Show Rooms, 139 & 141, Cannon Street, E.C.



CARTERS STAND (INTERIOR) AS EXHIBED AT THE



THE ROYAL AGRICULTURAL SOCIETY'S ANNUAL SHOW.



## TERMS OF BUSINESS.

### CONDITIONS OF GUARANTEE OF QUALITY.

Our Seeds have been carefully grown, selected, cleaned, and repeatedly tested under our personal superintendence. We are, therefore, able to guarantee their analytical purity and high germination, and purchasers are invited to submit them immediately to the analysis of any public botanist, and to return them to us at once if not approved by him. But we do not undertake any responsibility as to description, purity, productiveness, or any other matter connected with the crop when the Seed has been sown, and the Goods are sold upon the express condition that when they have been accepted, no claim for damages or otherwise shall be made against us for any breach of obligation arising out of the Contract for Sale.

### ORDERS.

ALL ORDERS SHOULD BE WRITTEN SEPARATELY FROM GENERAL LETTERS OR LETTERS OF INQUIRY.

Please write your name and address in full, also nearest Railway Station or Shipping Port to which the Goods are to be forwarded.

All letters are opened under the direction of one of our principals, and the orders are given out for execution under personal supervision. Plant orders are sometimes delayed by severe or hot weather, and they at all times take longer to execute than Bulb or Seed orders, in consequence of the time required in lifting and packing, especially in the autumn after the long accumulation of orders.

### NEW CUSTOMERS.

We beg respectfully to state that on opening an account it is necessary for us to receive Cash with the order, or a reference to a Banker or some one known to our House.

### FREE CARRIAGE OF GOODS.

(Except in cases where the cost of Carriage on the parcel, through being unusually bulky in proportion to value, absorbs the profit on the transaction, when we reserve to ourselves the right to send unpaid.)

We deliver SEEDS, POTATOES, PLANTS, and BULBS, CARRIAGE PAID to any RAILWAY STATION IN ENGLAND and WALES, IRELAND, and SCOTLAND, where practicable, also FREE by PARCEL POST to Purchaser's door where possible.

*We occasionally hear of charges being made by the Railway Companies, notwithstanding that our address label bears the imprint in RED letters "Carriage Paid." In cases where a Charge for the Railway Carriage is made, notwithstanding that the Package is labelled "Carriage Paid," Purchasers should on no account pay the demand, but refer the Carriers to us. Charges for delivery from Stations (if any) must be borne by the Consignee.*

Glass and other Goods liable to breakage are sent out securely packed, but beyond that we cannot be responsible for damage in transit. Notice of damage should be at once made to, and compensation claimed from, the Carriers.

### CASH DISCOUNT.

We allow 5 per cent. discount off the total amount of invoice on all goods paid for with orders or within fourteen days from the date of invoice (but at no later period), UNLESS OTHER TERMS ARE SPECIFIED OR ARRANGED.

### TERM OF CREDIT.

OUR FULLEST TERM OF CREDIT IS THREE MONTHS FROM DATE OF INVOICE, AND WITHOUT DISCOUNT, and our books are made up quarterly—i.e., March 1st, June 1st, September 1st, and December 1st. Five per cent. interest will be charged upon overdue accounts.

### REMITTANCES.

Postal Orders, Post Office Orders, or Cheques on any Bank are acceptable, and should be drawn in favour of JAMES CARTER & CO., and crossed "London and South Western Bank, Limited."

### EMPTY PACKAGES, HAMPER, BOXES, SACKS, BAGS, &c.

Are charged at cost price, and full price will be allowed on them when returned immediately, carriage paid and in good condition. These should be in every case marked—"Empties from —"; a letter by post informing us of their despatch is also necessary. Booking charges must be prepaid, and a receipt should be taken, so that the value may be recovered if they are lost or mis-sent. Coin, other valuables, or important communications should on no account be enclosed with returned empties. On receipt of a post-card we will send labels.

### ATTENTION TO CUSTOMERS.

It is our earnest desire that all the requirements and directions of Customers be scrupulously attended to by our assistants, AND WE PRACTISE THE UTMOST PERSONAL SUPERVISION TO SEE THAT THEY ARE CARRIED OUT. We would, therefore, respectfully request that we be informed if at any time there is cause for dissatisfaction that we may have it rectified at the earliest possible moment.

### CHANGE OF ADDRESS.

Please notify to us any change of Permanent Address, in order that we may be able to forward our Catalogues with regularity. The favour of your kind recommendation of our House to those of your friends requiring Seeds for the Garden or Farm, or Plants and Flower Roots for the Garden or Conservatory, is respectfully solicited. We shall be pleased, at all times, to forward our Catalogues to any address we may be favoured with.

**JAMES CARTER & CO.,**

SEEDSMEN BY APPOINTMENT TO  
HIS MAJESTY THE KING.

Address for all Correspondence: **RAYNES PARK, LONDON, S.W.**

# CARTERS FARM SEED CATALOGUE, 1912.

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